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ILLUSTRATIONS.

The New "Pavillon de Marsan," Tuileries, Paris.—M. Lefuel, Architect 804
Reredos, St. Mark's Church, Hamilton-terrace, St. John's Wood.—Designed and Executed by Messrs. J. Underwood & Sons 805
Plan of the Mosque of Cordova, Spain 808

CONTENTS.

The Architectural Restoration Question in Italy 791
City of London School Competition 793
The New Collections at Florence 794
Mr. Poynter's Lectures upon Art 795
Stone-Working Machinery at Kilburn: Exhibition of the Royal Agricultural Society 796
George Stubbs 797
Canonbury Tower 797
The Merrie Archers of Finsbury 798
The "Ecole Centrale des Arts et Manufactures" 799
Edinburgh 800
The Industrial Exhibition, Berlin 800
The New "Pavillon de Marsan," Tuileries, Paris 801
Reredos, St. Mark's Church, Hamilton-terrace 803
The Mosque of Cordova 807
A Glance at Llandudno 808
The Bristol and Gloucestershire Archæological Society at Cheltenham 810
Obituary 812
Lord Beaconsfield at the Westminster Industrial Exhibition 812
Art-Union of London Prizes 812
Award for Sanitary Invention 812
Free Exhibition of Pictures in South London 813
Parliamentary Jottings 813
The Ventilation of Dwelling-houses and Farm Buildings 813
The Proposed Widening of London Bridge 814
The Central Fruit and Vegetable Market 814
The Value of Larch as a Wood for Use 814
Theatre Building 814
Light Cases: Colgate v. Franklin; Doig v. Gamble 814
Compensation Case: East and Owen v. Metropolitan and St. John's Wood Railway 814
Building Act Provisions: Parapeting Flues; Jennings v. Duncan 815
Drainage at Crosby 815
Cost of Wood-paving Blocks 815
Masters and Men 815
Street Accidents 815
Books received: Audsley's Popular Dictionary of Architecture and the Allied Arts; Hancock's Amateur Pottery and Glass Painter (Chapman & Hall); The Strength of Materials (Trübner); Cal.'s Voussoir Arches (Trübner) 815
Miscellanea 815

The Architectural Restoration Question in Italy.

THE burning question of Architectural Restoration has been recently debated, not only in England. In that country to which we have to look as the cradle of, at all events, ecclesiastical architecture, the same difficulties recur with which we have here to deal; in fact, they there occur on a larger scale. The Italian buildings of hoar antiquity, as to which the question of restoration or of ruin from time to time demands a solution, are more numerous, more ancient, and more important, compared to either the area of the country or the requirements of the population, than is the case in the United Kingdom. It is thus a matter of no small interest for the English architect to be able to listen to the eloquent language in which, at a recent meeting of the College of Engineers and Architects at Milan, this subject was treated by Signor T. V. Paravicini, with more immediate reference to the Church of Santa Maria delle Grazie in Milan. We give, of course, rather the ideas than the exact language brought before the College.

In presence of a building interesting to the artist, the archæologist, or the historian, which time has decayed so far that a partial, if not a total, destruction seems to be imminent, it is natural that the first impulse of the architect should be to apply the best method of practical science to avert the threatened danger. But in the study of each particular case, special difficulties will be found to spring up. Like spectres, niched in the yawning cracks that disfigure the ancient walls, they seem to cry, "Do not rashly touch these venerable crevices, clothed with ivy, in which thousands of generations of mosses and of lichens have succeeded one another! They tell you my history. They say that these walls have survived the splendour of courts, the growth and decay of populations, the course of events. These ornaments, on which you look as decayed, are the mute witnesses of the patient and loving labour of artists who spent their lives in executing them, before they themselves returned to the dust. Under the shadow of this tottering wall the weary has found rest, the mighty has found peace; the sighs of love, and the complaints of sorrow, have been breathed; the evil doer has found sanctuary, and the virtuous has found shelter. Be not sacrilegious! Respect the form which the mighty power of centuries has given me! Do not mutilate me! Do not change me! Respect me!"

Who can turn a deaf ear to such an appeal? The question of restoration always has been, and always will be, one of the most difficult properly to solve; especially when the building which it is sought to restore is not exactly similar in all its parts; when it has been built at different times, or in different styles; and, moreover, when it exhibits any errors or disconnexions in point of construction, which it becomes absolutely necessary to remedy.

The Church of Sta. Maria delle Grazie, in Milan, which was the immediate subject brought under the notice of the College of Engineers and Architects, is an instance of a building constructed at different epochs, in different styles, and marked by such anomalies, both in structure and in ornamentation, as demand the serious attention of the artist, the architect, the engineer, and the archæologist, how to save it from the opposing perils of utter ruin, and of ill-considered restoration.

The church, as it exists at this time, presents two distinct constructions, which are but ill-joined to one another. Of these the first is in the Transition style that obtained between the decline of Mediæval art and the rise of the art of the Renaissance; the second is in the Renaissance style. Each of these portions of the building is imperfect, full of incertitude, and marked by doubtful touches of modification or of restoration. The church belongs to the Dominican monks, who, when invited by the citizens of Milan to establish themselves in the city, first installed themselves at S. Vittorello all' Olmo, without the Porta Vercellina. Not finding that locality suitable, they asked and obtained from the Abbot of S. Ambrogio a piece of land held on lease by the General Gasparo Vimercato, which was used as the winter quarters of the troops. The General not only gave the Dominicans a palace of his own, adjoining these quarters, and guaranteed the payment of the rent secured by the lease; but further undertook to build, at his own expense, the church and convent. The unusual spectacle followed, of a dispute between the founder, Vimercato, who wished to erect a noble building for the sake of his own reputation, and Father Jacopo Sestio, of Milan, the superintendent of the building, who insisted on an unadorned simplicity of structure that should be in accordance with the professed humility of the order.

The work was commenced in 1465, on the design, it is thought, of Guiniforto Solari. It was not finished by the time of the death of Vimercato, in 1467. In his will the latter left 6,000 scudi for the purpose of continuing the building, which he recommended to the care of his personal friend, Lodovico Maria Sforza.

In 1482, by the aid of the Duke Galeazzo Maria, the roof and the pavement were completed. The building, as attributed to Solari, had the form of a Latin cross, divided into three naves by two rows of monolithic columns, with capitals somewhat roughly sculptured, in the Renaissance style. The arches were pointed, and the vaults groined, in spite of the demand of Padre Sestio that the building should be covered with a plain wooden roof. The exterior is simply ornamented by terra cotta mouldings round the openings for the windows, and in parts by strips of white chalk interposed in the brickwork.

Lodovico il Moro, on assuming the reins of government, whether in order to carry out fully the pious intentions of the founder, or owing to his passion for attaching his own name to the most important structures in the dukedom, ordered the rebuilding of the church with greater splendour, and more in accordance with the taste of the day. On the 29th of March, 1492, Lodovico Maria Sforza, with the aid of the Archbishop Antonio Arcimboldi, and with the accustomed splendid ceremonial, laid the first stone of the new building. The reconstruction commenced with the demolition of the Cappella Maggiore, and of the apse, as constructed by Solari. It proceeded slowly, for want of funds, until the death, on Jan. 2, 1497, of the Duchess Beatrice d'Este, aroused the devotional piety of Ludovico Sforza, and induced him to increase the income of the convent. It is probably to this epoch that we must attribute the erection of the magnificent courtyard of the sacristy, which at the present day, by an act of Vandalism, is in great part walled up, in order to derive profit from its rent. The events of 1499 again interfered with the rebuilding of the church, so that the reconstruction was confined to the great chapel and the apses, and even these were far from being completed.

In considering minutely and carefully the mode in which these two portions of the church have been connected, so many variations, errors, and corrections are to be remarked that it is impossible to refer them either to hurry or to economy. Thus, in examining the construction of the walls, the *terra cotta* enrichments, the cornices and decorative work, it is plainly to be seen, not only that due diligence was exercised by the builders, but that there was considerable care used to exclude any undue haste or undue economy in the execution.

Whoever were the architects who laboured on this rich and imposing structure, which, in spite of its various defects, does not fail to command the admiration of intelligent persons, and to be a work deserving high commendation, the question now most pressing is that of the mode of restoration. It is required to satisfy two orders of requisites; those of a static and constructive character, and those which are artistic and archæological. On one hand we have to insure the safety of the edifice; on the other hand we must avoid introducing the least alteration in the form which has been assumed in consequence of successive modifications, and which may be regarded as displaying a chronicle of this important monument.

In this part of the inquiry arise the following questions.

In the restoration of 1598 the cupola was strengthened by shapeless blocks of granite placed under the architrave of the cornice of the cubic part of the building, on those sides of the cupola where support was wanting; and for further security, on the side towards the street, and on that which is opposite to it, two brick pilasters were added, which rise from the vault of the apsides to the cornice in question, and which abruptly cut into the ornamentation of these two sides. Should these blocks and these pilasters be removed, or no? In the first case it would be necessary to consider how the safety of the cupola is to be insured. In the second, what ornamentation must be adopted that shall harmonise with that of the remainder of the building?

In the second place is it possible to preserve the last bay of the flank of the church, which was evidently a late addition to the original plan, and which now serves as the side entrance to the Cappella Maggiore? If it is to be preserved, ought it to be decorated in harmony with the old part of the flank, or with that part built by Il Moro, to which it more naturally belongs? And in any case, how is it possible to reconcile the projection of the flank, built by Solari, with the cubical part of the Cappella Maggiore without making the want of harmony still more distressingly apparent?

Other questions may occur as to the way of obviating the blots of the mode of joining the pointed portion of the interior with that part of the same which is in the style of the Renaissance; how to deal with the lower part of the façade, spoiled as it is by the introduction of two vulgar little doors; how to supply the defective part of the cornice of the cupola. But some of these questions may be of easy solution, while others, in the opinion of the reporter, are altogether the reverse. Signor Paravicini therefore concludes by requesting the College of Engineers and Architects of Milan to nominate a commission which, taking into due account the many difficulties that beset the restoration of this important church, shall study the mode of meeting all the exigencies of a structural, an archæological, and an artistic nature.

This proposal has a further importance in this country, beyond that which attaches to the preservation of a single monument, however ancient, noble, or interesting. Signor Paravicini has had the merit of putting in a very clear light the knot of that question which has been of late so angrily discussed in not a few English journals. Certain critics, taking, as they conceive, the high-art stand-point, have of late been very mistaken in the abuse with which they have bespattered the work of the restorer among ourselves. We are among the first to admit that there are restorers and restorers,—restorations and restorations. We yield to none in the reverence with which we would guard the faintest relic of slightest touch of one of those master names of human art,—in whichever branch his native genius found expression,—whether it be a chalk sketch of Titian, full of burlesque malignity though it be, or a carved chair which has been the throne of Shakspeare. But we cannot too distinctly point out that preservation, in each particular branch of art, has its special conditions. The sketch may be glazed, and exposed, without risk of damage, to view; while safe from the destructive curiosity of the uneducated finger,—the organ of touch with which so many untaught persons seek to convey to their own minds the chief points to admire in an engraving, a book, or even an object in the round. The historic piece of furniture,—speaking, as it may well do, with a more direct voice to the imagination than even the paper touched by the crayon or the pen of a great artist,—cannot be thus protected. It can hardly be kept under glass. In that state it would be only an object at which to stare. In a room, tenderly guarded, reverently kept free from dust,—unprofaned by the weight of the chance visitor, as it is respected by the good feeling of those who know what it is,—the chair, or the desk, or the table of one of the chief literary or histrionic celebrities of the last three hundred years appeals to the imagination as few other objects can do. In the long twilight of the Midsummer nights, or in the early dusk of winter owl-light, an imagination even less fervid than that of Blake might give objective form to the great figures of the mighty immortals, sitting, as they so often did on those very boards, in a pose of characteristic meditation.

That, however, is a digression. What we have to say is, that as the crayon drawing demands a different mode of protection from the painting, the painting from the coin, or from the statue, each of these from the wood-carving, or the object adorned with wood-carvings; so does the conservation of architectural monuments depend on conditions proper to architecture as distinguished from those proper to ornamental art. Again, these conditions differ according to the nature of the building itself. A granite obelisk, supposing it to be commemorative of events, not in the history of the Pharaoh of the oppression, but, like the Arch of Titus, of those within the range of our own history, would demand, and ought to receive, a kind of care which would not be applicable to the façade of Westminster Abbey, or to the roof of Henry VII.'s Chapel. Questions here arise, as in the case debated at Milan, in which action is going on, and, unless arrested, will settle the question itself once for all. Such was the case, before cited, of the transept of St. Alban's Abbey. And it must also be remembered that most of those questions which have arisen in this country of late as to restoration have included an element which has not been mentioned by Signor Paravicini, although, no doubt, it was not absent from his consideration. Indeed, it may have appeared to have been one of too obvious and necessary a nature to require much remark. We refer to the character of our chief ecclesiastical monuments at places of worship. When we glance on the long list of upwards of 5,000 buildings,—abbeys, convents, priories, chantries, and the like, which were destroyed by the act of Henry VIII.,—the ruins of some of which yet attest a former splendour,—we ought to feel very thankful for the protection afforded by the public utility of these buildings. Thus, Tewkesbury Abbey church, with its unrivalled round-headed western window, would, no doubt, have shared the fate of other buildings once ruled by the Abbot, had it not been utilised as the parish church of Tewkesbury. We may mention, in passing, that this church contains a very remarkable relic, an organ, surmounted, not by the royal arms, but by the mace of the Speaker of the House of Commons, and said to owe its position in the abbey church in some way to Oliver Cromwell. This protection afforded by the public conscience of the nation to many of our noblest buildings has a converse side. The ritual use protected the structure; the structure, in its turn, protects the ritual use. Thus in any question of church restoration we have to remember that when we are not prepared to set apart a building for monumental purposes alone, replacing its position as a parish church by a new building, the convenience of public worship must be studied by any architect who has to pass a judgment on a question of restoration or repairs.

Thus, then, with our churches,—first, maintenance of the structure itself; and secondly, maintenance of the structure as adapted to its proper use, may be taken as conditions precedent to the third, and scarcely less important object, of maintenance of the historic form and features of the building, from the pavement to the roof, from the rich hues of the window jewelry, to the curves of the moulding of the battlements. We owe it to Signor Paravacini that the great difficulties that may at times occur between the preservation of the whole, and the preservation of the parts unchanged, has been so well brought under notice. We have yet to look forward to the time when, as educated men begin to understand the self-contained difficulties with which the architect has to struggle, they will appreciate at its due value the undistinguishing howl against "restoration," of which we have heard so much of late.

Furniture.—At the Yorkshire Fine Art and Industrial Exhibition, Mr. W. Snowdon, of Rochdale, makes some figure amongst the exhibitors of furniture. He shows a white oak fire-place buffet, with dado furniture. Adjacent are a couple of dining-room chairs, in white oak, elaborately carved and upholstered in morocco, with gold embossings. The adjoining section contains one of Mr. Snowdon's handsome bedroom suites in sycamore and walnut, with gold enrichments. The workmanship seems very good.

CITY OF LONDON SCHOOL COMPETITION.

THE committee of the City of London School have done wisely in admitting public inspection of the designs sent in; for in all important competitions, when (as so often happens) complaints are circulated that justice has not been done, or that serious mistakes have been made, the fullest publicity is the best answer to such charges if they are unfounded, and is, in any case, a declaration of good faith, and freedom from any intention of unfair partiality. This latter charge, however, no sensible person, we take it, would bring against the school committee. Competitors who are unsuccessful sometimes partially lose their heads, and see unfair motives in everything that is done. But whether or not the committee have not attempted to do what they are not qualified for is another question.

The problem presented by the conditions of the competition is not an easy one, and might, no doubt, be susceptible of various solutions; but there are one or two points which seem naturally fixed by the conditions laid down. One of them certainly is that the large hall, between which and the numerous class-rooms communication is to be provided without the classes interfering with each other, must be central in the plan. We do not see how the conditions are to be properly fulfilled otherwise; and as far as we have been able to observe, no one who has departed from this principle, and placed the large hall at one side of the plan, has succeeded in producing a satisfactory plan; on the other hand, the temptation to make an imposing front towards the Embankment and the river is, of course, considerable, and it is partly, no doubt, this ambition which has brought the large hall to the front in some designs, advantageously for the elevation, but by no means so for the plan. Other competitors have looked for a front feature in the dining-hall, with its large windows, which comes very suitably as a first-floor feature in the Embankment front. Equally it seems to us *de rigueur* that the administrative portion of the building must be on the ground-floor of the Embankment front. The entrance is necessarily in this front, the secretary's office must be near the entrance, the rest of the administrative department must be near the secretary. The plan, therefore, is settled in its main features so far; and the class-rooms, requiring good light, must be on the west and north sides looking over the new street and the playground area, as the east side is encumbered by the Royal Hotel buildings shutting off a great deal of light. The details are susceptible of many modifications; but as far as this main grouping is concerned, it appears to us that no practical architect could hesitate.

Some general considerations as to the style and treatment of a school building of this class suggest themselves, considerations which have not been present certainly to the authors even of what may be called, from certain points of view, some of the best designs. It should be borne in mind that such a school is not essentially, in its working, a public building. Internal convenience of arrangement, with inter-communication for its every day occupants, is the really important characteristic; for except on rare occasions of prize giving or "speech days," the outside public have little or nothing to do with the building, which is essentially a private one. This consideration should influence both design and plan: a very grandiose character in such a building is inappropriate; it is really a large domestic building, and should be treated accordingly, leaning more towards the picturesque than to the palatial character. For the same reason large and important entrances and entrance-halls are unsuitable, or at least unnecessary; they waste space in provision for what is very rarely wanted, and is of secondary importance. The large hall is not to be treated as a public hall; it is mainly for the use of the school. Some competitors have treated the design as if it were a municipal building, and planned the hall and its approaches as if it were a hall for public meetings, which is quite unsuitable. All that is required is that on the occasions when a portion of the public are admitted or invited, they should have convenient and sufficient access, but there is no need of big vestibules and crush-rooms.

This being the philosophy of the matter, let us see how the leading plans in the competition have put it into practice, commencing with the three which have been selected for premiation.

Of the three designs which have gained special favour in the eyes of the committee we should have no hesitation in saying that "Live and Learn," to which (as already stated) the first premium has been awarded, is the best; whether it is the best out of the total of fifty-three is quite another matter. The large hall is made architecturally the main external feature, not brought up to the front, but with only a low building before it; it stands with its longer side parallel to the Embankment, and the bulk of the class-rooms are in two stories, in a long wing running up the west side of the site, thus forming with the large hall a figure of L. This is certainly not a good way of meeting the problem of communication between the class-rooms and the hall, as it crowds the traffic to one end of the hall, and makes a long passage of approach from the further class-rooms. The hall is amply provided with doors, two at the west end and three on the south side, but the larger number of doors are just where they are not wanted, and will be of little use, and the plan does not, as a good plan should do, suggest at once the subdivision of traffic; a proportion of the boys may be ordered to use the side doors of the hall, but they would not naturally or of necessity do so, and there will be crowding at certain points of the corridors and staircase. The architectural appearance of the building is good; Renaissance of a French type, rather château-like; a style not out of keeping with a school; there is nothing remarkable about it, but it is pleasingly grouped and treated. As before said, we cannot regard the plan as a satisfactory solution of the problem in regard to general grouping; and some of the requirements are attended to in rather a rough-and-ready fashion. For instance, instead of the ante-room for caps, which some competitors have taken much trouble in arranging for each class-room, there is merely a wooden screen or partition cutting off part of the room; not a very neat or finished way of planning. None of the selected competitors have managed this detail of the plan satisfactorily. "Live and Learn" gets a large and lofty gymnasium in the space under the great hall (the floor of which is kept very high), and this is one of the best things in his plan, as it provides for the covered playground required without infringing upon the open space of the external playground.

"Playgrounds," the second premium design, is planned on a better principle in regard to the hall and class-rooms, the former being placed in the centre of the back portion of the block, running north and south, and the class-rooms in parallel blocks on each side of it. This plan also shows a playground under the hall, which we may conclude, therefore, has appeared an attractive feature to the judges. The style may be described as Elizabethan, with a bearing rather to the Classic than the Gothic element in that style of compromise. The detail is good, the general appearance a little heavy. The author has expended a great deal of space in a large entrance-hall, which might have been turned to better account. The class-rooms are the wrong shape for lighting, having the longer side at right angles to the window-wall, so that the end furthest from the window will be insufficiently lighted. Where a room for such a purpose can only be lighted from one side, it should be so shaped as to bring every one as near the light as can be conveniently arranged.

"Simplicity": is a Gothic design of plain and severe type, with geometric tracery in the principal window-heads. The plan cannot be said to be at all a good one for the purpose. The large hall is brought to the extreme front, forming one side of a quadrangle, round which the rest of the buildings are grouped. Architecturally, this is good enough, as far as effect is concerned, but we take our stand on a central hall as the key of the position. The class-rooms are open to the same objection as in the last, of having the end of the room turned to the light instead of the side. Some parts of the plan surprise us not a little: for example, the arrangement of secretary's offices and water-closets in the centre of the space under the large hall, lighted and ventilated only into the cloister, and with a great amount of the very undesirable usury of borrowed light. Where the unfortunate secretary is to get light enough in his private office to do his work without gas it is difficult to see. The building is unobtrusively picturesque externally, but we confess ourselves utterly at a loss to understand the reason for the selection of the plan for especial commendation.

We may observe that all the three premiated plans have central entrances,—an arrangement the wisdom of which we much doubt. It almost necessarily entails a certain separation and breaking up of the administrative department, which should be as closely compact as possible.

Let us now look at some of the less fortunate designs, which are collected in a warehouse in Aldermanbury; those, at least, whose authors have consented to a public tribunal, which some have declined. We omit noticing designs which are at once manifestly unsuitable, and which have no feature suggesting special comment, and we do not follow the order of hanging in any way, as at the time our first notes were made a good many of the most elaborate designs were still shut out from criticism, awaiting the consent thereto of their authors. Among those which were then open to comment, we may first mention, as certainly one of the cleverest designs in the collection, that entitled,—

"Move": This is a design in Geometric Gothic of a domestic type, *i.e.*, with little tracery, which is confined to windows of the most important apartments, the rest being mullioned lights. The entrance is at the angle next the hotel, and marked by a large powerful-looking tower forming a large mass, the obvious object of which is to dominate the hotel; the tower looks, however, a little stumpy, and would be better, architecturally speaking, for a lantern on the top of it. The great hall, an oblong apartment, is in the centre parallel to the embankment, and the west end of it, with a large traceried window, shows effectively over the lower class-room buildings. The class-rooms are placed west and north, the latter on two stories. The access from them to the large hall is well and rather effectively managed by short corridors between the areas for lighting which surround the hall; it makes a good deal of corridor space, but it is an arrangement very well calculated to keep the classes from confusion and crowding in passing to and from the hall. The administration department is in the front block on the ground-floor, exceedingly well arranged, the secretary next the entrance, the library and committee-rooms in the centre, the head-masters' rooms at the south-west angle so as to be equally near the administration and the class-rooms. Each class-room has a lobby and cloak-room adjoining. The common room (over the headmaster's rooms) is also very well placed for communication, and would be a charming room, with its oriels giving a view up and down the river. The top lights for drawing-classes are introduced in the one-story class-rooms on the west. On the whole this strikes us as a most able plan; and the exterior design, though a little heavy in detail, and capable of improvement, is picturesque in general effect, and looks like a school. The author, by the way, seems to have forgotten the covered playground specified in the conditions. On the other hand, he has studied the composition of the building more than is usual, giving on the block-plan the points of view from which to obtain the best combinations.

"Our Boys," has a very pleasing Late Gothic design, but the plan is rambling and very unpractical.

"Practical" (in small letters*) is noticeable on similar grounds, for a very well-drawn perspective of a picturesque building in the style which is a kind of cross between Jacobean and Elizabethan, with heavy and picturesque oriel windows. The author's claim to his motto is hardly borne out by the fact that he has filled up the ends of his principal front corridor with water-closets, terminating the vista each way, and through which the corridor is partly lighted. The things done in competition under the name of "practical" are certainly extraordinary. In the main, the plan can only be considered tolerable; the interest of the set consists entirely in the design and draughtsmanship.

"As the Twig is bent the Tree inclines."—This is a rather fine building, but the author has been looking at it too much from that point of view. He brings the entrance to the main hall up to a large entrance vestibule, spacious and effectively planned, but, like some others of the competitors, he forgets that the great hall in such a building is not to be treated as a public meeting-room. It will, on a few occasions in the year, become so, perhaps, but its main use is for the school, not for the public; and to provide very easy public access, and be comparatively indifferent to the access from the interior part of the school (as in this case), is to put the accidental before the essential. The plan could not possibly be recommended as a school plan, though it would be an effective and suitable one for municipal buildings.

"Palmam qui meruit ferat" has a picturesque and pleasing design, but the front as well as the plan has the mistake of the last-named set,—it is too like a town-hall. The author has, independently of this, put himself quite out of court by contravening the instructions of the committee in making the latrines a part of the main building, and opening into them out of the class-room corridors.

"L" merits a word for the admirable and suitable effect of his design as shown in the perspective view,—a quadrangle with a low side (one story) towards the front, Jacobean details with mullioned windows. The plan, and indeed the elevations also, suggest inexperience, but the general appearance of the perspective design is most picturesque and appropriate, perhaps more so, in regard to exterior, than any other drawing in the collection.

"Practical" (in large capitals), a weak design in Geometric Gothic, but which we cannot resist noticing, to point the moral of "Practical" the second time. Here is a building, an essential condition of which is access to the main hall from all the class-rooms, and here is a competitor calling himself practical who puts the hall at the south-east angle, and runs out the bulk of the class-rooms in a long gallery extending far beyond the main block at the north-west angle.

"Compactness."—This is not undeserving of its name. The plan is in many points very good in detail, and the design, Geometric Gothic (brick, with stone mullions and dressings), is in very good taste, and shows considerable refinement. The mistake of this plan is, again, the position of the great hall, which is brought to the front parallel to the Embankment. The access from the class-rooms to it is fairly managed, all things considered, but the whole scheme embodied in the instructions points, as we said, so plainly to a central position of the main hall as the key of the plan, that it is surprising that any architect who could turn out so good a design as this should not have perceived that such an arrangement as he has adopted was only making difficulties and defects in his plan. The wish to get the large hall in front seems to have been his stumbling-block. The hall is also turned the wrong way about. The dais should have been at the end, nearest the position of the head-master's room and the library on the floor below. As arranged, the head-master would have a Sabbath-day's journey from his room before he could appear as *deus ex machinâ* on the platform.

"Concentration."—This is a clever though a very peculiar plan, and certainly deserves attention. The author has adopted the system of doing away with any corridor between the class-rooms and the central hall, and making them open right into it, thus obtaining, nominally at all events, an equal accommodation with others on a smaller area. On the ground floor, however, it seems to be little more than nominal, as the outer margin all round the hall is really an aisle divided off by columns and not available for seating, and it appears to us that the result would be a too intimate inter-communication between all parts of the school, to the detriment of quiet, and of the separation of departments, which is desirable. Upstairs the advantage is more apparent, and the drawbacks less so. We should be very cautious before recommending such a plan for adoption; but it is certainly a clever and original experiment. The design, a modified Elizabethan, looks very well in the admirably executed water-colour perspective. The interior of the hall is effective, but could hardly be acoustically satisfactory.

"Facta non verba," a Late Gothic design with a dignified central tower, the whole suitable in character and expression to the purpose of the building. A point in the plan is the grouping of the class-rooms in projecting bays of two rooms width, with a space between, so that each class-room has a side window (for ventilation) as well as the main windows. It may be questioned, however, whether this loss of space should be incurred for an object which, with a proper system of ventilation, should be attained by other means.

* There are three sets of drawings with this motto, which we can only distinguish by describing the lettering.

The access from class-rooms to main hall is well arranged for.

"Blackfriars."—This is one of the plans in which the assembly-hall has been treated in theatre form, and this feature has influenced a large portion of the plan. The hall is central, the proscenium wall (if we may so speak) being next the front corridor, and the semicircular auditorium towards the playground, and around this run on each story corridors from which the class-rooms open, forming a series of small blocks radiating from a centre, in a manner, perhaps, a little too much resembling an approved form of prison plan, and architecturally producing a bad effect towards the playground side, the appearance of which, however, might very well be improved without altering the plan in any main feature. For practical purposes, we are decidedly in favour of the theatre form for the assembly-hall, and this arrangement of the class-rooms round it has great merit, both in suitability and simplicity of plan, and as a piece of arrangement does credit to the originality and practical sense of the designer. These qualities are, unfortunately, less conspicuous in the arrangement of the front part of the building, which is spoiled by the stumbling-block of the central entrance; the door leading into the centre of the platform of the assembly-hall, for instance, immediately opposite the outer entrance door, is absurd, and there are other bad mistakes. The design is cold and uninteresting, and looks too like a railway hotel. The principal feature of the plan, however, makes it worth special attention in spite of these faults.

Under the same title, and by the same author, is another plan, showing an oblong central hall, parallel to the Embankment, with a main entrance near the south-west angle, and the adminstration department shut off from the rest by a door at each end of the administration corridor. This part of the plan is very good; but the class-rooms are rather scattered, and the position and access to the dining-hall not good.

"Royal Academy": a Classic design of some dignity; a portico in the centre, an order of pilasters carried through two stories, Palladian fashion, at the sides; cupolas at the angles. The plan shows the large hall in a central position with the longer axis north and south. The access from the class-rooms is well arranged, but the class-rooms are placed the wrong way for lighting, as in some other plans. The administration department is in front, and, as in so many others of the designs, is split in two by the entrance. The dining-hall is rather inconveniently placed in the extreme north-east angle; the boys in the class-rooms at the opposite extremity would get an appetite for dinner by the long walk.

"John Carpenter, Founder": a rather pleasing design, though a little "gimcrack" in general effect. The various features which characterised the transition from Gothic to Renaissance in England are now becoming so mingled and variously combined that we want two or three new names for the varieties of architecture thus generated; neither "Elizabethan," nor "Jacobean," nor "Queen Anne," describes or includes them all. We may perhaps term this the mullion-and-pot variety: the windows being mullioned *à la* Gothic, the cornice crowned with wreathed pots *à la* Renaissance. The plan has a central large hall (north and south), and dining-room behind: this portion of it resembles several other plans; the specialities are an octagon entrance, agreeable as far as effect is concerned, but knocking an immense hole in the middle of the administration department: the basement is entirely made into playground or gymnasium, including a large swimming-bath, an admirable addition which we wonder that no other competitor, as far as we noticed, has thought of suggesting. Some parts of this playground basement would, however, be rather insufficiently lighted.

"La Vie durante": Palladian architecture with a cupola in the centre of a perfectly symmetrical front; too municipal in appearance, but designed in good taste and with thorough knowledge of the rather frigid style of architecture selected. The plan embodies somewhat the same idea as that shown in "Concentration," described above; but carried out with more consistency and simplicity. The large hall, placed centrally and parallel to the embankment front, becomes, in fact, on this plan, a kind of *salle des pas perdus*. The main-entrance vestibule and the subsidiary boys' entrance-porch lead right into the central hall, and from this all the class-rooms open round, each of them divided, however, from the centre hall by a small lobby flanked on either side by the hat and coat closets. Behind the main hall a large staircase connects the school portion with the masters' common room, and over this with the dining-hall, the latter partly carried on piers, leaving space under it for a covered playground. The plan could hardly be carried out better and more symmetrically, granting that this treatment of the main hall as a common passage to the whole of the school would not interfere with its practical use for some of the purposes for which it is required; but that is just what appears to us to be nearly inevitable. The plan is nevertheless a really clever one, the drawings beautifully executed, and the whole highly creditable to the author.

"Plan" shows a large and fine perspective view of a picturesque building in which mullions, pilasters, circular-headed windows, and mansarde roofs are combined into a rather incongruous but effective whole, suitable in architectural expression. "An Old Scholar" sends a fine and elaborate set of drawings of a building in Gothic Perpendicular style, rich and effective in treatment. In both these cases, however, the merit is all in the elevations and perspectives.

"Practical" (in small capitals): of course an unpractical design, with a large and costly centre tower and spire, and a great deal of space wasted in a cloistered court, purely for effect. The large hall is in the rear of the court, running east and west parallel to it. The intercommunication between class-rooms and other portions is fairly maintained, but there is a want of purpose in the plan, with a good many weak points. The design, nineteenth-century Gothic with French leanings, is in many ways admirable, both in detail and in general treatment, though we hardly think it in keeping with the *genius loci*.

These are the plans, among those exhibited, which seem most to call for special comment. A great deal of very clever work has been done and thrown away, as usual in such cases, and we cannot express ourselves as satisfied with the result. Even as regards "Live and Learn," it is certainly not the best plan among the competitors, though it is the best of the three selected, and has probably a claim to one of the premiums. We should have little hesitation in saying that the best plan of those submitted is "Move"; in fact, it is one of the cleverest plans we have seen, and the architectural treatment is above the average, and is peculiarly suitable in character to the purpose of the building. We presume that there must have been some decided technical reason for turning out such a plan in favour of those selected. At the same time, we may add that we are convinced of the entire *bonâ fides* of the committee in wishing to select rightly, and we have reason to believe that very exceptional trouble has been taken to secure a thorough examination of the designs in a systematic manner. Admitting this, however, a committee such as this is not competent of itself to do justice in a competition of this character, and the members of it ought most certainly to have called in some independent eminent architect to assist them in the selection.

A memorial, praying that they will even now do this, is about to be presented to the Common Council, and is already signed by the following, as amongst the competitors, nineteen of them being members of the Royal Institute of British Architects:—

J. & S. Flint Clarkson, John P. Seddon, Thomas Arnold, J. Douglass Mathews, Thos. Blashill, Robert Walker, Fredk. Wm. Tarring, Lacy W. Ridge, J. M. Hay, Thomas Oliver, R. Stark Wilkinson, Chas. Henman, Thomas Harris, Jno. Belcher, Thos. W. Aldwinckle, Wm. Ashdown, Wm. Henman, Wm. Ward Lee, T. W. Cutler, Henry S. Legg, Edwd. Clark, Thos. Goodchild, J. Lewis Holmes, T. Roger Smith, Arthur Billing, Thos. E. Collcutt, Edwd. C. Robins, Robert Aldridge, E. R. Hewitt, James T. Walford.

One further remark suggests itself, viz.,—that it is a great pity that in this, as in so many similar cases, the opportunity for public criticism has been deferred till the choice was made, so that the criticism loses its chief value. If the examination and comments of architectural critics, especially, are to go for anything, why not give opportunity for them at a stage of the proceedings when suggestions might have some practical effect, instead of admitting them only when the choice is made, and then asking them merely to say whether they think it a good or a bad one?

THE NEW COLLECTIONS AT FLORENCE.

WHEN the Government of Italy, in 1864, was transferred to Florence, that city resolved upon reviving its ancient glories, and becoming worthy of being entitled the Italian capital. In the result, however, Rome, the natural metropolis of the peninsula, regained that historical distinction, and the Florentines were disappointed. But this did not deter them from following out the project of two new museums upon a scale consonant with their traditional fame in that respect, and, although the task of bringing together, in the course of a few years, a genuine artistic and antiquarian collection, was a difficult, and even a hazardous one, it was undertaken, and has been crowned with complete success. The obstacles alluded to were many and serious. Italian archæologists had been warned by the forged coinages of the Parthian and Sassanisinide dynasties, which had recently flooded the market from Taunis, and the false Assyrian monuments which were ultimately proved to have been fabricated at Diabekir. Mere money could not carry out the idea. No amount of it would supply the place of large experience, or of, so to speak, a keen antiquarian scent. Still, the examples of the Pinacothek and Glyptothek, at Munich, were encouraging, and it was remembered also that South Kensington had secured the finest illustrations of the Italian Renaissance, while, in the Metropolitan Museum of New York is undoubtedly the best collection existing of antiquities from Cyprus, gathered by General Cesnola, with the choicest of the jewels and stones, archaically engraved, belonging to the celebrated treasury at Curium. The attempt was therefore made, and Florence possesses two fresh collections comparable, in many respects, with the Pitti and Uffizi themselves. Tuscany, in fact, notwithstanding wars and spoliations, has never ceased to be rich in the relics of art; nearly every family preserves heir-looms of this character. Its churches abound with them; and of these many thousands are now in the trust of the Florentine municipality. Not a few ancient and scarcely-inhabited palaces were ransacked, beneath the roofs of which, in neglected corners, spun over with cobwebs, were discovered rare specimens of furniture, ornamented with graceful metal-work and carving, and wall-pictures concealed beneath repeated coatings of house-painter's trash. Those, especially, of the Grand Dukes, the Imperial Poggio, and the Pratelini, were found filled with this kind of opulence,—pictures, bronzes, bedsteads, old marbles, porcelain, and gold and silver plate. Then, the custodians of the older collections lent their aid. The Uffizi, for instance, had long been encumbered, through want of space. Many of its most precious contents,—281 pictures, and 29 statues among them,—were stowed away out of sight, in attics or cellars; and these have, for the first time, been brought into the light of day. Again, some of the more antique Italian cities,—Pisa, Cortona, Chiusa, and Perugia,—consented to part with examples of their most cherished treasures; but no very large contributions could, of course, be expected from sources such as these. A richer field was opened by competing with speculative collectors whenever fresh ruins were explored or excavations made, until the Government asserted a right of priority in such purchases. In addition, the sculptor Santarelli made a present of his "cabinet" to the new National Museum, a course which was immediately adopted by the representatives of numerous historical houses, as well as wealthy amateurs, Signor Vagnonvilla giving his superb set of vases from Greece. But perhaps the most abundant harvest was reaped from the convents, just recently suppressed by an Act of the Italian Legislature. From these were acquired, in multitudes, pictures that had adorned their chapels, and sculptures that had decorated the tombs of princely and noble personages. Some of the most authentic specimens of the Lucca della Robbia were brought from the famous monastery of Vallombrosa. In fact, after the dispersion of the dynasties which, during so long a period, divided the rule of the Peninsula, the King of Italy found himself, among all the sovereigns of Europe, the one who possessed the greatest number of historical palaces, in each of which the accumulations of centuries were stored. They could not possibly be inhabited by the royal family, even for a single

day each, in the year; they could not, without an enormous cost, be maintained in solitary state, for show, a few excepted, at Turin, Milan, Naples, Rome, and Florence itself. The others were given over, more or less, to the municipalities; that of Poggio Imperiale was converted into an academy for teaching the Tuscan dialect, its art galleries being turned over to the new Museum. The "Adonis" of Michelangelo had already, however, been transferred to the Hall of the Hermaphrodite in the Uffizi. The churches, also, paid their tribute, and, in the general work of reconstruction going on, found themselves often far more rich in treasures of this kind than had been imagined. Exquisite pictures were discovered in cloistered nooks, seen of none for ages, except sacristans or bell-ringers; sometimes hidden in the sacristies themselves, or in unlighted lumber-rooms. It was thus that the beautiful bas-reliefs executed by Lucca della Robbia and Donatello for the organ-loft of St. Mary of the Flowers were rescued from the obscurity in which they had been concealed ever since they were taken down to make way for certain decorations on the occasion of the marriage of the Grand Duke Ferdinand III. towards the end of the seventeenth century. They remained in a sort of contractor's shed, but have once more been restored to light, and are confessed to be among the finest productions of the two Tuscan masters.

But the whole of the new collections are not under one roof. By the side of the National Museum have grown up two other institutions,—the Etruscan Museum and the Museum of St. Mark. The former has been created with a very distinct and useful purpose. The archæologists of Tuscany, it ought to be known, revolt against the sense in which the term "Etruscan" is commonly applied. They do not admit that the art of any inventive people, ancient or modern, can be adequately represented by a series of vases, however varied or characteristic, nor will they assign to Etruria work which manifestly belongs in its conception to Corinth or Athens. This eclecticism, however, has not prevented them from furnishing a "cabinet" of remarkable value, containing, with the rest, the Chimæra and the Pallas of Arezzo; the statue of Lucumon, vulgarly labelled "The Orator," discovered A.D. 1556, beneath the waters of Lake Thrasimeno, and a crowd of bronzes, mirrors, tripods, black pottery of Chiusa, sarcophagi sculptured with human figures, and Greek and Roman work, conspicuously separated from the true and acknowledged Etruscan. This collection was originally placed in the gallery that unites the Pitti with the Uffizi palace; but it speedily overflowed those limits, and invaded the Uffizi itself. The fresh discoveries almost daily made in the rich soil beneath the Tyrrhenian cities necessitated a removal, which took place to the disused convent of St. Onofrio, celebrated on account of a fresco attributed to Raffaelle in his youth. There, too, were deposited the Egyptian galleries of Rosellini, the disciple of Champollion, with the matchless "François vase," so named after the unwearying excavator, who burrowed for it in the depths of the Tuscan marshes, and found it at last near Chiusa. It was classically called "the crater of Ergotinios," and is reputed to be the largest and most remarkable of all archaic vases decorated with figures in black. Close to it is a sarcophagus, in Carrara marble, adorned with sculptures in high relief, representing battles between Greeks and Amazons, dug up at Corneto, the ancient Tarquinia, only four years ago; but there is no catalogue of the collection as yet. The third, to which reference has been made, is that of St. Mark, a convent of great antiquity and a high historical reputation, within whose walls lived Fra Angelico and Fra Bartolomeo. Its cloisters, its refectories, its chapels, even its cells, still retain the frescoes worked upon them by the genius of the Dominican masters, of whom Ghirlandajo was one. It was thus a gallery in itself, but, being appropriated by the State, was forthwith converted into a museum, and it is believed that such an assemblage of old missals is nowhere else to be found. It is to be regretted, of course, that these treasures should be distributed in three different buildings; but the Florentines are already taking thought upon the question of either fitting up one of their existing palaces to receive them altogether, or of,—which might be better,—erecting a new structure, expressly adapted and dedicated to that purpose. While thus bent on collecting, it is to be hoped the authorities will not omit to afford proper encouragement to production.

MR. POYNTER'S LECTURES UPON ART.*

STUDENTS have been naturally curious to fathom the æsthetic views of the Director of the Art Department of the kingdom. Mr. Poynter has given them the means of gratifying that curiosity by publishing Twelve Lectures upon Art. It is a legitimate curiosity, for whatever merits a man possesses as a painter, it is the grasp of principles, correct principles, which alone qualifies him as an efficient teacher and director.

Mr. Poynter is right when he says that it is much easier to write about art than to practise it,—that is, if he merely mean that it is easier to write *anyhow* about art than to practise it,—but if, on the contrary, he means to say that it is easier to write *correctly* about art than to practise it, we entirely differ from him. The lectures under review refute to some extent his own assertion. We also know that whilst there have been many great painters, sculptors, and architects, there has not as yet been a single successful and reliable expositor of the theory of the Fine Arts. In fact, notwithstanding the progress which has been made towards scientific exactness in every other department of human inquiry, the theory of the Fine Arts stands at this very day on about the same footing as astrology did to science. And, strange to say, the scientific acumen of the age is so obtuse in regard to this matter that it rather pats the rhapsodical art-mystic on the back for writing as wide of his mark as the alchemist did of chemistry.

Our author avers that example is better than precept to the student of the fine arts. This is a mistake; and if in his position the only alternative left him were to choose between the two, he ought to desire a thorough command of *precept*. Mr. Poynter has not been driven to so hard-and-fast an alternative, but it has been demanded of him, in virtue of his official position, that he should be theoretical as well as practical, and therefore he cannot consistently with his duty lay *precept* aside to give himself over to *example* in painting. Otherwise, as it stands to reason, the examples which he contributes to the Academy walls and elsewhere need not have been supplemented with any other title than R.A. Mr. Poynter, somehow or other, appears strangely to forget, both in his preface and at the conclusion of his lectures, the *raison d'être* of his Directorship of the Art Department; for, as its director, the promulgation of correct precept is his duty, and the object of the Art Department was not to invite foreigners over wholesale for our instruction, but to render us independent of foreign influence and aid in the art manufactures; whereas he himself repudiates the function of preceptor, and confesses that the Art Department is inadequate to effect the end for which it was designed.

"Example is better than precept" is, as an adage, only meant to have a special application to those who make great professions without performance. It has no reference to precept in a scientific and wider sense. The libraries of the world testify to the value men have set upon precept; and it is through the precepts contained in them that good example has been rendered possible. Moreover, Mr. Poynter's theory that example is better than precept, in the sense in which he uses it, is utterly controverted by facts, for never had any nation such a wealth of art-example as this, and of example far excelling any which even Mr. Poynter is likely to give us. The world has been ransacked for it, and the cry from South Kensington and Trafalgar-square is ever for more, and yet, as our Director confesses, without effect. "Example" has been developed to the full, whereas "precept" has not yet reached its exact or scientific stage; that is to say, we have it not; though from the fragments in the works of Vitruvius and of Leonardo da Vinci we must feel that, in the great periods of art, theory had attained to a scientific exactness of which we have not at present the least conception. Precept is imperfect, and the importance of organisation in the development of taste, and of an enlightened demand, are overlooked. These are the three points requiring the earnest attention of all those who desire to raise the status of art in this country. According to political economists, an enlightened demand should be the prime mover upon which all good things in art await. To imagine that a taste for wood-carving, for example, can be forced merely by establishing a Wood-carving Academy is to misread the teachings of history. Wood-carving flourished in England when there was a demand for it, and goes out, just as line-engraving does, because there is not.

If Mr. Poynter does not believe in the efficacy of precept, we cannot conceive what induced him to publish his lectures, more especially that one which he himself considers "obsolete," though he ought not to require to be reminded that correct principles, correct precepts, are never "obsolete." At all events, having given his precepts to the world, they are open to criticism, and we think we shall be able to show that it is not *easier* to write *correctly* upon art than to paint good pictures.

Imprimis, almost the very first paragraph of the first lecture is a statement which assumes the form of a general principle, though it will not for a moment bear looking into, and should have been one of those "too dangerous generalisations" which we are told were expunged,—

"The qualities of mind required to produce a work of art are two,—the power of design and the power of imitation."

Now, there are two arts which are not imitative,—viz., architecture and music,—and to which, consequently, this formula will not apply. After this Mr. Poynter runs head-on to the old fallacy that *fitness* constitutes beauty,—the hack fallacy, indeed, of writers upon art, though Haydon, years since, saw that it would not hold water. Perhaps Mr. Poynter considers that he holds a brief for the dogmas of South Kensington? Beauty is merely an accident of *fitness*, or everything in nature which is adapted to its purpose would be beautiful, as we know it is not. The hippopotamus, the rhinoceros, the orang-outang, the gorilla, the pelican, &c., are all admirably *fitted* for their several purposes, but are by no means beautiful. Everything in nature is not intended to be beautiful; there must be contrariety, or even the beautiful would no longer interest us. That the form of *some* ships and of the plough, which Mr. Poynter cites as instances, should please us is merely accidental; beauty is not a necessary correlate of fitness, otherwise the paddle-box, the smoke-stack, the derrick, the barge, all admirably fitted to their purpose, would also be beautiful. The beautiful consists not in fitness, but in a certain appositeness to our own nature which some things which are fitted to their purpose have, and others have not. It is astonishing to find this fallacy of fitness thrust forward over and over again, when every minute's experience should prevent it. Farther on Mr. Poynter says, "the ugliness of the toad is proverbial"! Who made it? Is it not fitted to its purpose? And then he immediately falls foul of the engineers for having made a toad of a railway bridge *fit* but proverbially ugly. Why were not the toad and the railway bridge beautiful? Their *fitness* is undeniable.

Then, again, the word "truth" is used over and over again to the confusion of the reader, till he is compelled to inquire, "What is truth?" There is truth of fact and truth of principle,—two distinctly different things. This confusion of ideas which follows the use of the word "truth" would be averted if writers would inculcate the pursuit of "the right"; for this is really what they mean when they would inculcate "a love of truth." What is right? That should be the question which should preface all our other inquiries.

Mr. Poynter's remarks on the proclivities of "shoddy" in matters of taste, or rather of vulgarity in matters of taste, exhibit an even tenor of common sense; as also for the most part do his lectures upon Old and New Art and the Systems of Art Education; and the reader would do well to carefully note what he says upon the institution of "Scholarships in Italy in the Old Time and in France in the Present Day." It will be a great gain to the Fine Arts in England when we shall rouse ourselves to adopt it.

We entirely differ from our author, however, in his advocacy of the use of the "stump" in preference to the "point." It has always begotten a loose and careless manner. It encourages the student to attempt to run before he can walk. It is far better as a discipline to ascend from particulars to generals. It is true that a fine work of art must exhibit both general form and detail, but the careers of the great artists, as well as of the great scientific men, have always at the commencement of their careers shown a loving care for detail, for facts, before they proceeded to generals. Some of the

* Chapman & Hall.

finest art-studies by the greatest men were made with the silver point. Further on in his lecture on the value of prizes, he quotes Reynolds upon this point:—"A lively and what is called a masterly handling of the chalk or pencil are, it must be confessed, captivating qualities to young minds, and become, of course, the objects of their ambition. They endeavour to imitate these dazzling excellencies, which they will find no great labour in attaining. After much time spent in these frivolous pursuits, the difficulty will be to retreat; but it will then be too late, and there is scarce an instance of return to scrupulous labour after the mind has been debauched and deceived by this fallacious mastery." *Per contra*, we entirely agree with the following, a passage which would considerably enlighten the proprietors of private colleges and schools as to the right method of teaching drawing:—"There is no such thing as teaching landscape painting; I cannot consent to consider it as a separate art; teach a student to draw and paint, and he will paint landscape or figures according as his inclination to one or the other dictates."

We would also have the general reader and the student ponder over what Mr. Poynter states about the universality of the genius of the greatest artists, from page 210 to 214. And we also cordially sympathise with him in his antagonism to the opinions of Ruskin in chapter ix., though we may lament some of the expressions used. The following passage, too, goes to the root of our national inferiority in matters of taste:—

"That feeling of love for good work for its own sake, and of pleasure in bringing it to perfection, which is the most certain evidence of a genuine artistic spirit, was not in former times the property of a few individuals of superior gifts and education; it was the common property of all handicraftsmen, whether possessed of original talent or not." . . . . "That such a state of national sentiment has existed in the world is, however, indubitable. We have the evidence of everything that the Greeks have handed down to us from the best times of their art, that, amongst them at least, nothing short of perfection was tolerated; nay more, that they were possessed of a critical faculty which would seem to have surpassed our own, so that their trained and cultivated perceptions were satisfied with nothing less than a subtlety of form and proportion, the advantages of which to our coarser senses seem inappreciable. Nor is it only in their more important works that this perfection is to be found, or in the decoration of such things as our modern cant calls art objects; the evidence of their instinctive love of beauty and perfection of workmanship is equally to be seen in their more trifling productions. The Greeks in their art did not aim merely at adornment; they aimed, above everything, at completeness and consistency, while their natural instincts, heightened by cultivation, supplied them with ever-varying forms of that beauty which can be appreciated by the eye, but of which description can convey no idea. We may safely say that everything they produced was a work of art, because they never tolerated anything short of perfection in workmanship; and we cannot but believe that the noblest spirit of rivalry in art animated the whole people, from the highest to the lowest."

It is only when Mr. Poynter ventures out of his depth into general principles that he flounders; when his feet touch the ground, the general reader and the student may follow him with pleasure and profit.

The Sale of City Churches.—The return presented to the House of Commons of the number of churches pulled down or condemned under the Union of Benefices Act (1860), with a statement of the sums realised by the sale of sites and what has been done with the proceeds shows that the following sums were realised by the sales:—St. Benet, Gracechurch-street, 23,894*l.* 4s.; St. Mary Somerset, Upper Thames-street, 10,241*l.*; St. Mildred, Poultry, 49,550*l.* 14s. 6d.; St. Martin, Outwich, 37,631*l.* 8s. 9d.; St. James's, Aldgate, 6,601*l.* 12s. 2d.; St. Antholin, Queen Victoria-street, 44,990*l.* 12s. 9d.; St. Michael, Queenhithe, 10,541*l.* 14s. 7d.; All Hallows, Bread-street, 32,214*l.* 11s. 10d.; All Hallows, Staining-lane, 12,418*l.* 3s. 4d. Total, 228,324*l.* 1s. 11d. Besides the above, there are the parochial endowments, the value of which is not stated, but which are more or less definitely accounted for.

STONE-WORKING MACHINERY AT KILBURN: EXHIBITION OF THE ROYAL AGRICULTURAL SOCIETY.

BY M. POWIS BALE, M.E.

CONSIDERABLE attention has been given by engineers of late years to the conversion of stone by mechanical means, and it is admitted on all hands that hand-labour is expensive and the result oftentimes unsatisfactory. Although skilled workmen will probably always be more or less employed in the production of the intricate forms of stone ornamentation, yet the plainer and simpler ones that are used in building construction in quantities, such as sills, copings, landings, flags, kerbs, and such like, can be produced by machinery at less cost and with much greater accuracy and sharpness of profile than by manual labour. Although ample scope is left for inventors in this direction, a number of machines have already been introduced with more or less success; the exhibits at Kilburn, however, consisted of two only.

Messrs. Western & Co., London, exhibited in operation a patent stone-moulding and planing machine, adapted for working freestones of all kinds; a similar machine was shown at the recent International Exhibition in Paris, but several modifications in the mode of operating have since then been introduced. The stone to be worked is mounted on a table arranged with a horizontal screw traverse motion. The cutters, of which six sets are used at the same time, consist of plain bars of steel of taper section; these are fitted in stationary tool-holders, and arranged to project one beyond another, so that the stone is operated on by each in rotation, any outline of moulding being obtained by adjusting the cutters to form the profile required. The improvement lately introduced consists in making the cutter-box reversible, thus allowing a separate series of tools to be brought into action. The cutter-box is mounted on a slotted quadrant, and arranged to move round by means of a worm and worm-wheel. After the moulding is formed by the roughing-cutter, the outline is finished by means of some three or four scraping cuts given by a thin steel cutter formed to the profile of the moulding desired. This cutter is mounted in a separate vertical tool-box, following the roughing-cutter, and we noticed that in lieu of a steel cutter of, say some $\frac{3}{4}$ in. in thickness, a thin blade of steel about $\frac{1}{16}$ in. thick, packed on either side by plates of wrought iron, was employed, thus obviating the necessity of constant sharpening. We examined a number of specimens moulded by this machine in Alabaster, York, Robin Hood, Longridge, and Mansfield stones, in which the mouldings were well developed, and the outline clear and unbroken. The *modus operandi* of this machine is of the simplest, and on the whole it has much to commend it.

Messrs. Robinson & Son, of Rochdale, exhibited in motion one of Brearley & Marsden's patent stone-dressing machines for tooling, planing, and moulding. The stone to be worked is fixed on a table arranged with a horizontal rack traverse motion, similar to an ordinary planing-machine for iron. An eccentric shaft revolves transversely over the stone, and delivers an irregular eccentric motion through arms to two sets of cutters, which vary in number according to the width of the stone worked. These cutter-arms are mounted in a swinging quadrant frame, the roughing cutters being in front, and the finishing cutters at the back of the quadrant. After the front set of cutters have roughed out the work, the quadrant is swung round, and the back set of finishing cutters are brought into action. The quadrant frame carrying the tools is adjustable vertically either by belt or hand. The eccentric shaft is speeded to make 200 revolutions per minute. The roughing-cutters are adjustable, are of steel, and are formed with corrugated edges; the back or finishing cutters are plain, and being made of sheet steel, of about 18-gauge, require no sharpening. The advantages claimed for this machine by the inventors are that from the peculiarity of the irregular eccentric motion, although the whole width of the stone is worked, only one cutter strikes the stone at the same time, thus lessening the pressure and strain on the machine and stone, rendering the latter less liable to breakage. The machine is well constructed, and the general details are well worked out; but considering the number of cutters employed, we should imagine some little difficulty would be experienced in keeping them all to the same adjustment. The samples of stone worked were well turned out of hand.

Although scarcely coming under the head of stone-working machinery, we purpose noticing briefly some other labour-saving machines exhibited, which are directly connected with building construction either in winning or converting the raw material.

The Ingersoll Rock Drill Company, London, exhibited several of their well-known drills in operation; and Messrs. Hathorn & Co., of London, showed also some drills in work on granite, which possessed considerable originality of design. In these drills all the valve motions are contained in a small cylindrical box, and the valves are moved by steam and without tappets, the movement of the piston cutting off the steam, controlling them. The drill is fed forwards into the stone by means of a lever, against which the piston rubs, at the same time lifting a spring, which, on being released, forces the drill forward. All the working parts are of steel. We also inspected a miniature drill made of phosphor-bronze, which is intended to be used in cracking large granite blocks, a number of small holes being in the first place drilled, and the stone afterwards split by means of wedges. These drills were driven by an air-compressor of 9½ in. bore by 10 in. stroke, the general arrangement of the air-cylinder was good.

A numerous selection of stone-breakers were in work.

Mr. Marsden, of Leeds, exhibited an improved patent "Blake" machine, arranged with an improved drawback motion and expanding toggles, the bearings of which were made of steel. The cubing jaws are made in sections, and reversible; the bearings of anti-friction metal.

Messrs. Broadbent & Son, of Stalybridge, also showed in work a "Blake" machine of massive construction, and fitted with an improved drawback motion, consisting of a simple arrangement of levers for pulling the crushing-jaws back, in lieu of the ordinary plan of a spiral spring embedded in india-rubber, which in the first instance absorbs some power in its compression. The crushing-jaws are fitted with removable and reversible faces of chilled cast-iron; the eccentric shaft is of steel. We saw a quantity of hard Groby granite put through this machine with satisfactory results.

The Dunston Engine Company, of Gateshead-on-Tyne, exhibited one of their Archer's patent stone-breakers. In this machine, which is simple in construction, the stone is cubed by the combination of a lever-jaw and roller. The roller is of chilled cast iron, arranged with corrugations at right angles. An attachment can also be fitted for pulverising purposes.

Mr. Gimson, of Stalybridge, showed his duplex stone or ore breaker. In this machine a rocking lever is arranged vertically on a fixed centre at its lower end, the rocking motion being obtained by an eccentric operating on the upper end. A movable crushing-jaw is arranged on either side of the lever, and connected with it by loose toggles kept in position by an adjustable rod. When in work the rocking motion of the lever imparts an alternate motion to the crushing-jaws. By adjusting the jaws two different sizes of stone can be broken at the same time.

The Savile-street Foundry Company, Sheffield, exhibited in action one of Hall's patent multiple-action stone-breakers. In this machine the crushing-jaws are divided, either half being worked by a separate eccentric attached to a main eccentric shaft, each eccentric operating a separate connecting-rod and set of toggles; they are also arranged to balance each other when in motion, thus reducing the strain on the machine and consequent power required to drive. One jaw only operates on the stone at the same time; but the double connecting-rods employed, travel through twice the space of the single rods employed in most machines. The crushing-jaws are withdrawn after each stroke by operating one on the other by means of coupling the rods of the jaws by a cross lever, mounted on a stud at the end of the machine. The main framing and general details of this machine are of lighter construction than is usually employed, the makers claiming that through the balancing of the moving parts excess of metal is not required. The stone on which the machine was operating was from the Croft Stone Quarry, Leicester.

In concluding our notes on the wood and stone working machinery exhibited, we may

add that two points more especially struck us; one was the utter want of originality displayed by some exhibitors of wood-working machinery, and the other was the great contrast in the material and workmanship employed. As regards the first we may better illustrate our meaning by mentioning that we noticed some half-dozen combination machines of the hand-power saw-bench and band-saw class, which appeared more or less to have been deliberately copied from one or another even to small mechanical details, and an intelligent foreigner might readily be pardoned if he concluded they were all made by the same man. We may well ask why should this be? Have we such a paucity of designers that the makers cannot vary a little their monotonous outlines, or are they content to hide their original inventive lights under bushels and "rest and be thankful" on other men's ideas? At the same time, it cannot be denied that whatever outlay in time and money is incurred in improving and beautifying the design of even a simple machine is amply repaid by a steady increase of trade and reputation, and the most conspicuous successes in a pecuniary point of view have been scored by those houses that have ever borne this in mind. We are afraid that, through excessive competition, the tendency is ever to produce something cheap, and as long as buyers are found willing to invest their money in this so-called cheap machinery, so long will articles be produced which neither do credit to their makers nor give satisfaction to their purchasers; and this is one reason, we take it, that a considerable amount of trade has been diverted from this country to other sources, English manufacture being now not the synonym for quality it once was.

A pleasing contrast is afforded, however, by much of the agricultural machinery exhibited at Kilburn, which, even down to the smallest details in its construction, appears to have been studied and well thought out. Again, the quality of the work displayed in some of the wood-working machinery was miserably deficient,—inferior castings, the use of cast iron in lieu of wrought or malleable iron, or seamy wrought iron for spindles in lieu of a finer quality iron or steel,—thus, for the sake, we presume, of saving a few shillings in the original outlay, damaging seriously both the appearance and the working powers of the tool produced. On the whole, however, the Exhibition contained much to admire and instruct, and, as Shakspeare has it, the "best men are moulded out of faults."

GEORGE STUBBS.

GEORGE STUBBS occupies a unique position among English painters, for he is essentially a scientific animal painter. But if the works of the artists of more recent times who have made the delineation of animals their chief study are considered, it will be evident that they have generally drawn animals from a picturesque rather than a scientific point of view. The late Sir Edwin Landseer, who ranks as the greatest of our modern animal painters, showed his dogs and his horses in an essentially picturesque manner. Thus his horses, though most life-like, are generally grouped so as to bring before the spectator ideas far removed from those suggested by a delineation of a horse for the sake of his structure. The playfulness of a mare and her foal; the sturdy cob being shod at the forge,—all have connected with them many more ideas than are shown in drawings whose primary import is to depict the anatomy of the horse whilst engaged in some vigorous movement. We do not mean to aver that Stubbs was always scientific, and nothing more, in his treatment of animals. What we wish to make clear is, that whilst painting animals with wonderful truth and naturalness, his aim was scientific accuracy, and the delineation of the structure of animals rather than animals in picturesque groups, suggesting almost human feelings. And considering how fine an artist George Stubbs was, we are thankful that Mr. Mayer, of Liverpool, has added to the services which he has already done to the cause of English art by publishing a short monograph on this able painter. It is the third of three small biographies which are published in a single volume;* but the notes on the lives of Thomas Dodd and William Upcott will not have so much interest for the general reader as the sketch of the life and career of Stubbs. Dodd and Upcott, both remarkable as connoisseurs and collectors, are chiefly curious as studies of human nature; whereas Stubbs has obtained for himself, among English artists, a unique and high position,—a position, indeed, which is scarcely fully appreciated by many real lovers of art. Thus the remarks which we find about him in the late Mr. Redgrave's "Biographical Dictionary of Artists of the English School," are of the crudest and, in some respects, most ludicrous kind. "Very little," he begins, "is known of his early life than that he was an earnest anatomical student, and about 1754 visited Italy." And we say that some part of the notice is ludicrous because Mr. Redgrave thus concludes his remarks:—"He had resided there [in Upper Somerset-street] for forty years, and during that time had been a strict water-drinker, *yet* he lived to enjoy eighty-two years of vigorous life." Certainly, if a good many more artists had been "strict water-drinkers" their lives would have been happier and more useful, and to state that Stubbs lived to over eighty years of age, in spite of his habitual beverage, is the oddest bit of artistic criticism which we have encountered for a long time.

Let us give a few details concerning this remarkable artist. He was born in Liverpool, August 24, 1724, his father being a currier and leather-dresser. Till he was nearly twenty years of age he lived at Liverpool in his mother's house, when he began to move more about the country, going to Wigan, then to Leeds, and thence to York, where he began a regular study of anatomy. In the year 1754 he went to Italy, was there some time, and on his return to England remained mostly in Yorkshire until 1758 or 1759, when he set up his home in London. In 1780 he was elected an Associate of the Royal Academy, and in the next year a full Academician; but on account of a quarrel he was never admitted, though he always claimed the right of being considered an R.A., and in 1805 the list of Royal Academicians contains the name of Stubbs. As to the merits of the quarrel with the Academy, it is really now not worth while to speak, for it is one of those matters which are without interest or profit to the reader of to-day.

It was soon after his return from Italy that Stubbs began his great work on the anatomy of the horse; though long before this, soon after he reached the age of twenty, he had been preparing himself for some such task as this, and for the accurate delineation of animals, by a regular study of anatomy, dissecting human and animal subjects when he was at York. Upon the Anatomy of the Horse he worked for more than eighteen months, but it took seven or eight years before the work actually appeared. It was published in 1766. The reason of this delay was the fact that all the celebrated engravers of the day declined to engrave Stubbs's drawings, but the only result was, that "with characteristic resolution," as Mr. Mayer says, he set to work to do his own engraving. But this work had to be done as additional to his regular occupation of painting, upon which Stubbs had to depend for his livelihood, so that the engraving had, for the most part, to be done early in the morning, or in the evening hours, after his regular day's work was put away. This, indeed, was strictly scientific work in its aim, because in these plates there was no attempt beyond a complete accuracy in pointing out the structure of the horse. But with this careful education and training in perhaps the most important part of the animal painter's art, it is not to be wondered that his pictures were most true to nature, and somewhat severe in their style. For example, two pictures which Stubbs painted for the Marquis of Rockingham, a Lion devouring a Stag and a Lion devouring a Horse, are essentially works meant to show with strict truth and vigour the forms of animals strung to a high pitch of muscular exertion, and in the exercise of their utmost power.

On the other hand, it must not be supposed that Stubbs was solely scientific, because accuracy was after all only the leading principle of his art. Thus, in his picture of the Fall of Phaëton, his talent as a vigorous and powerful as well as scientific painter are very apparent, and it was so highly thought of by Sir Joshua Reynolds that he took it in place of one which he had expressly commissioned Stubbs to paint for him. In this short notice we cannot enter more into details regarding the many works,—portraits of racehorses, portraits of his contemporaries, or miniatures,—upon which, with undiminished vigour he was engaged almost to the last hour of his life. For he was full of energy to his dying moments, and the very day before his death he took a walk of eight or nine miles. At three a.m. of the following day he awoke well, but was seized with a sudden pain; he dressed himself, went down-stairs, and died in his arm-chair, sitting alone. Such was the characteristic end of a man who throughout his life had been somewhat reserved in his nature, and most self-reliant. Stubbs will for a long time hold a deservedly high place in the branch of art which he chose, and will be a conspicuous example of thoroughness and resolution in the tasks of his life.

* Memoirs of Thomas Dodd, William Upcott, and George Stubbs, R.A. Printed for Joseph Mayer, F.S.A., by D. Marples & Co. (Limited). Liverpool: 1879.

CANONBURY TOWER.

To gossip about old places, and to exhibit a lively interest in an old date cut in stone and let into a solid wall of fine red brick, many will deem to be a craze; but those who have once caught the true flavour of antiquity, and learned what it is to extract its essence of humanity from the heart of an old stone, can very well afford to laugh in turn at those who take it for an axiom that the dying present is infinitely of more value than the dead past. As the dead are "the greater number," they ought, in a Parliamentary country, to govern the thoughts of men, if not the country; for the latter function the difficulty would be to collect the votes.

However, absurd as the proposition may seem, at first sight, the dead to a very considerable extent do practically govern the earth. The living generation has, in youth, been shaped by the dead one. It is true that the visible links are now below the earth, and lie out of the sun; but one glance inward reveals a web and network of ties, bringing the past into such close union with the present, that they are as absolutely one, as if the dead were still alive and breathing. Love set deep in the soul refuses to admit that death's dull shadow quenches it. Intellect finds that the spirit of the great still rules the thoughts of living men. Libraries, which the Egyptians considered to be a pharmacopœia for diseases of the mind are no less the chartularies of the treasure left us by the wise dead, whose silent oracles are yet instinct with life.

Let no man talk of trifles. The origin of life is so small that no microscope in aid of human sight can reach it; yet life is a principle so wide-reaching that I am not sure whether, to a mind of just perception, that gluten and cased pulp of life—a snail, be not absolutely a greater thing than chimborazo.

A man of mean soul, but with an intellect of genius, not long ago trampled Europe, ruled France, and threatened England. He was the demi-god of his day, and his forces seemed superhuman and of kin with the elements. While he administered, princes trembled at his nod. Power and Napoleon were synonymous. What did he say at St. Helena? "Chance is the only legitimate king of this world." Oh, the demigod of Imperialism! The kingly voices, the battle proclamations ushered in by "suns of Austerlitz," dwindle here to the puling accent of the sick-room. The great man grows into the "little Pagod." The mighty sword retires to the invisible dimension of its own point, and the biggest of conquerors,—spite of his page of history all to himself,—is again, what he began as, a trifle. Dante, dead four centuries, is now a hundredfold less a trifle than he. It is not given to man properly to say what is a trifle; so let us return to gossip and the carved stone we started from, which is in Canonbury tower; and providing that we can amuse ourselves innocently let no too-wise wiseacre chide us for trifling.

The carved stone, then, with its date 1362, has been cavilled at as not being contemporaneous with the erection of the original building, because Arabic figures were not in use till long after that period. I am not going to weary the reader with an endeavour to digest satisfactorily the antiquarian dust-apple of Edom, as to the exact period at which Arabic numerals became commonly used in this country. A hundred and twenty years later they were used. From Caxton's "Mirror of the World," the date 1480 is given in Arabic numerals; so without taking it for granted that this embedded stone might have formed part of the original edifice, and have been preserved in the new one memorially as we see it, it will serve to carry us back a long way into "hoar antiquity," for five centuries are

linked by it to the spot where stands the fine old ivied tower of Canonbury.

It was thought that Canonbury was so called from its being part of the possessions of the canons of St. Paul's, as they have a prebend of Islington or Isledon. It is the eleventh stall on the north side of the choir in St. Paul's Cathedral; but this is an error, for it was held by one Green, in the service of King Edward the Confessor, with licence to sell, and falling finally into the hands of the Berners, was sold by Ralph de Berners to the Prior of St. Bartholomew's, West Smithfield. In passing, it may be mentioned that that large district adjacent, and called Barnsbury, or (until of late years built over), Barnsbury Fields, derives its name from Berners, or Barnersbury, the bury or manor-house of the Berners family,—just as Bedfordbury, Coventgarden, takes its name from the manor or bury of the Earls of Bedford, and this name of Bernersbury is older than that of Canonbury, and has been handed down traditionally for more than 500 years, a confirmation grant of Henry III. to the Priory being dated 1253. It was from the prior and canons of Smithfield, not of St. Paul's, that Canonbury took its name.

The greater part of the old mansion was built in the reign of Henry VIII., by Prior Bolton, a great builder in his time, whose rebus of a bird-bolt through a tun is still visible in several places about the tower and mansion. Ben Jonson speaks of it as "of Prior Bolton and his bolt and ton," and there is the Bolt-in-Tun in Fleet-street, a booking-office with the same device, an inn belonging to the Whitefriars, as far back as 1443, and designated in a grant as "Hospitium vocatum, *Le Bolt en ton*."—[Cunningham, *sub voce*.] This point has never received the attention it ought, for we thus get the device long before the time of Prior Bolton. Was Prior Bolton's father or grandfather a foundling, a Romulus, of Fleet-street, who came by chance to be the potboy of the aforesaid inn, and took the name thence, whilst his little son or grandson sang as chorister to the canons of Rayhere, and by talent rose in that Church, open to all, to be the Prior of St. Bartholomew's and Canonbury's fair domain? He was cited to convocation 1509 (1st of Henry VIII.), and died 1532. Weaver and the accurate Stow, of beloved memory, both make a mistake, and call him the last prior. He was not; he was the last but one. A portrait of him and others used to hang in the church, and afterwards got by foul methods into Sir Robert Cotton's library, with the following distich:—

"Gulielmus Bolton precibus succurite vestris,
Qualis erat pater hic, homus hec, et cetera monstrant."
[Nichols, p. 7.]

"Here Bolton lies, oh! aid him with your prayer.
What man he was his church and works declare."

There is dignity in the phrase, and it reminds one somewhat of Milnes's fine epitaph or epigram on Wren. At the Dissolution, Canonbury fell to Thomas, Lord Cromwell, 1539. He concerted the union of Anne of Cleves with King Henry. She was divorced and Cromwell lost his head. She escaped with a handsome jointure, and "the Flanders mare" was turned out to grass in Canonbury paddocks. Then it passed to the Dudleys. In 1549 it was mortgaged by the Earl to John Yorke, Merchant Taylor, of London, for 6,660*l*., redeemed, and at the attainder of John Dudley, 1553, reverted to the crown, and Queen Mary gave it to the rich Sir John Spencer, citizen and clothworker, of London, Lord Mayor, 1594.

There is a letter written from Twickenham Park, by Lord Bacon to this Mr. Alderman Spencer, which is the first link of connexion extant between Bacon and Canonbury, and therefore interesting to those who think him, as I do, the greatest English philosopher, not excepting for one instant Sir Isaac Newton. Sir Francis is the pride of England, although, owing to the geometrical definiteness of his discoveries, Sir Isaac has become the boast of the world. Newton lifted astrology into a science, but Bacon was a second Solomon with a new hemisphere tacked on to the old one known to the great Hebrew king.

John Spencer was no mean man, but quite worth our while to linger over in this haunted spot while we gather a fact or two concerning him. By opening at the Bridge-house granaries he saved the great city from a famine. He suppressed the riots of the apprentices, and some of the riots against the Dutch and French strangers, and even with humility but great firmness opposed the queen herself, who desired to take into her service the City Recorder. There is a curious picture of the times connected with this "rich Spencer" and Canonbury House, which in any good account of Canonbury should not be lost sight of.

It is extracted from a rare pamphlet published in 1651, entitled "The Vanity of the Lives and Passions of Men," by Dr. Papillon Gent. In Elizabeth's day a pirate of Dunkirk with twelve of his mates, plotted to carry off Sir John Spencer, and came with his shallop boldly across the sea, anchored in Barking Creek by night, and with six men ambushed in Islington ditches to seize Sir John as he returned to Canonbury from Crosby-place. Extraordinary business kept Sir John at St. Helen's that night, and he slept safely under the chimes of the City spires, and lulled by the hourly cries of the street watch. The kidnappers lay out breeding rheumatism, side-stitch, and pleurisies, we may hope, in the wet ditches beyond Hoxton by Colebrook, but Sir John, whom they hoped to have had ransomed at 50,000*l*.,—a black night's work,—came not, and they skulked back to Barking Creek, and so with the first tide put off for Dunkirk again, where some professional bolus-maker perhaps injured the constitution of several of the crew in clumsy effort to remove the ill effects of the Islington malaria.

Well, Sir John died, full of years and honours, and was buried in great state in sweet St. Helen's Church, where effigies of himself and lady, large as life, may still be seen, or might not long ago (for we must always speak thus advisedly in an age when bishops have taken to pulling churches down), in a chapel by themselves, under a Latin inscription, not too pompous, setting forth their titles and those of their daughter, Lady Elizabeth Compton.

This lady fled from Canonbury, by the bye, in a baker's basket, to marry Lord Compton, clandestinely, and was discarded for so doing by her father. When a child was born to the disobedient couple, Queen Elizabeth, commiserating, undertook to be mediatrix. She told their tale, suppressing names, and asked the great citizen to stand godfather. Flattered by the royal condescension, he not only acceded, but said he would adopt the child as his successor, and so he did, and the daughter was happily reconciled, and came again in triumph back to Canonbury. Yet even this legend of fairyland was not one of unmixed joy. The black hoof of Ahrimaz touched it, and the caudle-cup smacked of wormwood to Elizabeth Compton; for my Lord, at Sir John's death, in succeeding to the huge property, went off his head for awhile with pecuniary joy. He became at the same stroke very rich and a poor creature. The reconciliation story is traditional, not historical; but here again I prefer, as it is a pleasant tale, to enjoy it rather than to challenge it, because it cannot be fired at or photographed like the dome of St. Paul's. I have no sympathy with Niebuhr, and Romulus to me is still the bantling fed on wolf's milk. Believe it or not, dear sceptical reader, no one can gainsay that the tradition has become historical, and I see in it the prototype of the buck-basket episode of the *Merry Wives*,—here a father, there a husband, eluded by a basket. Your own nose, excellent reader, is not a thing assured. It will not be yours seven years hence if science says truly that the whole body changes every seven years; then why should you poke it into ambiguous places, and endeavour to establish certainty, specially in negation, with a proboscis which is itself subject to a septennial fluctuation? As the French say of war, "It has nothing certain but its uncertainty"; so is it with us in the battle of our life. One man's word for assurance is another man's synonym for presumptuous impudence.

Lady Elizabeth Compton's letter to her husband, her "sweet life," demanding many thousands of pounds of him to pay her debts, buy furniture, together with 6,000*l*. for jewels, and 4,000*l*. for a pearl necklace, has been often reprinted for the delight of ladies at its reasonableness, and is worth reading, though much too long for reproduction here. This letter was probably written from Canonbury House. Those who wish to see it may refer to Nelson's "History of Islington," p. 234, where it is given in full.

C. A. WARD.

French Enterprise in Africa.—The French Minister of Public Works has urged the appointment of a Commission to consider the question of uniting Algeria and Senegal and Soudan with railways.

THE MERRIE ARCHERS OF FINSBURY.

IN these days, when archery is so favourite a pastime with our country cousins, female as well as male, and when every county, and almost every neighbourhood, has its archery club, a few words about the stout archers of London in the olden time may not be void of interest.

The skill of the English yeomen, as displayed in shooting with the bow and arrow, has been proverbial from an early date, although the exact date of the first use of the long bow is not recorded with certainty. The Anglo-Saxons and the Danes, however, we know were well acquainted with it, for they practised it for the sake of food and also occasionally for amusement. The Normans used the bow more especially as a weapon of war, and accordingly in the eyes of chivalry the archer's craft was considered an essential part of every English gentleman's education. It, however, fell gradually into disuse, and from the reign of Richard I. down to that of Edward III. we read but little of archers and archery. Yet the art must still have been practised in England, for otherwise the victories gained by our soldiers in the French wars would not have been ascribed by the old chroniclers to the skill of the English in the use of the long bow. From and after Edward's days the practice of archery was much encouraged by the court and the wealthier nobles, the sons of whose tenantry were commanded to exercise themselves by shooting at targets. "Butts" were consequently set up for the use of the yeomanry at convenient places in the neighbourhood of our principal towns.

But it was reserved for an accident in the reign of Henry VIII. to revive the practice of archery in all its splendour, and to invest it with a popularity which it had not known for a century, or, in fact, since the days of Crecy and Poictiers. What the edicts of successive monarchs of the rival houses of York and Lancaster could not effect, now prohibiting all other sports except archery, and at another time compelling every youth to furnish himself with the necessary implements for its practice, was at once brought about in the early and brighter days of "Bluff King Hal" by the publication, through the novel agency of the printing-press, of the ballads and traditional stories which told of the bold outlaw of Sherwood Forest. Thenceforward Robin Hood and Maid Marian figured as companions in the May dances on every village green from the Tweed to the Thames, and archery once more became popular,—indeed, grew almost universal. The king, who was himself no mean bowman, seeing that such a pastime was likely to exercise the health and strength of his people, and to keep them in good humour, did his best to encourage the amusement. He founded, as Charles Knight tells us in his "Old London," in honour of St. George (the patron saint of Merrye England), a fraternity called by his name, composed of a body of skilled archers, who were authorised to "exercise shooting at all manner of marks and butts . . . . as well in the city as the suburbs, and in all other places." And in order to encourage the sport further, the king proclaimed beforehand that no one was to be severely punished, or even apprehended, who accidentally killed another by his arrow, if before shooting he called out, "Stand fast."

Hall gives us in his Chronicles an account of the gallant state in which the king and his courtiers went out on "Maying excursions" in the neighbourhood of Greenwich Park, towards Blackheath and "Shooter's Hill," whose name still keeps such royal sports in remembrance. "His grace, being young, and not willing to be idle, rose very early in the morning to fetch may or green boughs, himself fresh and richly apparelled, and clothed, with all his knights, squires, and gentlemen, in white satin, and all his guard and yeomen of the crown in white sarcenet. And so went every man with his bow and arrows shooting to the wood, and so repaired again to the court, every man with a green bough in his cap; and at his return, many hearing of his going a-Maying, were desirous to see him shoot; for at that time his grace shot as strong and as great a length as any of his guard."

Again, whilst keeping his court at Windsor Castle, the king ordered various archery matches to be got up, and invited all the best archers of the day to come forward, and to show their prowess in the Great Park.

One day, when almost all had shot away their arrows, and some had struck very near the bull's-eye, the king noticed one of his body guard, named Barlow, who had yet to shoot. "Win the prize," cried the king, "and thou shalt be Duke over all these archers." Barlow did shoot, and won the prize; and the king, on learning that he lived in Shoreditch,—then a pleasant suburban village,—named him in jest "Duke" of that place. The name stuck to Barlow, and became in a sense hereditary, for his sons followed suit, and became bold and cunning archers, and an annual archery gathering at Shoreditch long kept up the memory of the laughable affair. So late as the year 1583, we find this local festival kept up with great magnificence. On the 17th of September in that year we read:—"The citizens set forth at their great charge a shooting match with much state, the 'Duke' of Shoreditch and all his nobility and officers marching through the city of London to the shooting-place. And first he gave a summons to all his 'Marquises,' 'Earls,' and 'Barons,' with all their trains of archery in and about the City of London, to be in readiness to accompany him into the field, every one with a long bow and four shafts, on the aforesaid day, to meet him in Smithfield. And so they did. The 'Duke' with his company set forth from Merchant Taylors' Hall. There repaired unto him all those that were appointed for conducting of his person to the place of meeting, as true barons, and a multitude of good archers in their habits under his own ensign, who, with sound of trumpets, drums, and other instruments, passed along Broad-street, where the Duke dwelt, through Moorfields to Finsbury, and from thence to Smithfield. There was also the Marquis Barlow, ... and the Marquis of Clerkenwell, with hunters, who wound their horns; and the Earl of Pancridge (St. Pancras), and the Marquis of Islington, and the Marquis of Hogsden (Hoxton), and the Marquis of Shakelwell, and other such nobility, with all their trains, making a surprising show. For they marched in very great pomp, oddly habited, through several places and chief streets of London. The number of archers that now shot was 3,000. The number of them that accompanied the archers as whifflers, and those that guarded them with bills, was 4,000, besides pages and henchmen. Their attire was very gorgeous, a great many wearing chains of gold."

But the Duke of Shoreditch was not the only member of this mock aristocracy of the middle classes of London. In the far East was another noble band of archers, who met at Mile-end, and whose head was a still greater man than the Duke himself, for he was styled "Prince" Arthur. Coming one day to see the performances of this band with the long bow, the king was so pleased that he took them under his special patronage, and facetiously confirmed them by a mock charter as "the famous order of Knights of Prince Arthur's Round Table"; and from that time forward when his quick eye discerned an archer good in any one of his subjects he added his name as a knight of that illustrious order. It is satisfactory to know that these two rival bands of archers were on the best of terms, and that they frequently exchanged outward signs of courtesy and friendliness. The reason, perhaps, is not far to seek, for their domains lay wide apart; there was no chance of mutual trespasses, and therefore there was no clashing of interests between the knights of the northern and of the eastern suburbs.

The Tudor era was very naturally the golden age of archery, but, alas! it was almost as brief as it was brilliant. The introduction of gunpowder had driven the bow from the field, and now the growth of the City began to absorb, one after another, all the open spaces in its suburbs available for the pursuit of the archer's pastime. Even before the last Tudor had paid the debt of nature individuals had begun offensively to plant hedges and to cut awkward ditches across the open fields between Moorgate and Islington. The hedges and ditches were destroyed by the lovers of the bow, but all in vain. The king's council and the lord mayor and aldermen were called in to decide on the legality of this alleged abridgment of the rights of the Londoners; but in the end the aggressors gained the day by sheer force of persistency. Stow, therefore, complains bitterly, in 1598, of the daily ancient exercises of the citizens in the long bow as almost "clean left off and forsaken," foretelling that such disuse of noble out-door sports will only lead to the filling of bowling-alleys and dice-houses in the City, and so to the spread of immorality.

From some cause or other the fields obtained a short respite. James I. appointed a commission to "view and survey on such grounds next adjoining to the city of London and the suburbs within two miles compass, and to reduce the same into such order and state for the archers as they were in the beginning of the reign of Henry VIII., and to cause the banks, ditches, and quicksets to be made plain and re-formed."

At this time the great grounds of London were the Finsbury-fields, reaching from the Moor Gate itself right into the open country. The only buildings outside the City walls were a few shops on the left hand, which formed a sort of avenue, in which bows and other articles for gay archers were sold. That avenue was afterwards Grub-street, and is now called Milton-street. Beyond the end of this avenue the open fields were dotted in every direction with the archer's marks, pillars of wood or stone supporting targets, and surmounted by all sorts of fanciful emblems, such as birds, beasts, or serpents. Charles Knight tells us that the shortest distance at which the young Londoners shot their shafts was nine-score yards, and the longest more than double. But even this showed a great falling off from the days of Henry VIII., when no one was allowed to shoot at a mark distant less than eleven-score yards. The shooting, however, continued to degenerate even more in this respect; for in 1737 the greatest distance shot was but eight-score and the least about three-score yards. The targets had long become standing "butts" for the satirists of the age, who never tired of attacking the effeminacy of the modern heirs of the Duke of Shoreditch. The result was what might have been expected. Passing out of credit, the sport went out of fashion also; the shadowy dukedom of Shoreditch became a thing of the past, and archery died fairly out. In vain did Charles I. and more than one of his successors issue "commissions" in the hope of reviving the sport, for its followers dwindled away; and the year 1780 saw the very last expiring meeting of the once "merry archers of Finsbury."

The French word for archery is "*artillerie*"; and the Artillery Company of London, although its members no longer shoot with the long bow, claim to be regarded as the modern representatives of the ancient bowmen and archers of whom we have given a short sketch above. The Company still prefix the word "Royal" to their name; and the Prince of Wales is their colonel, in the room of Bluff King Hal. But their claim to this distinction is practically disputed by the members of the London Toxopholite Society, who regard as their founder Sir Ashton Lever, a worthy knight who lived in Leicester-fields, and whose name is immortalised as the collector of the Leverian Museum. A few of the old Finsbury archers joined the new society at its establishment in 1781; but the former body never reappeared, so that they may fairly be said to have been absorbed in their successors. The first shooting-grounds of the Toxopholites were the gardens between the Leicester-fields and Soho; but, though the Prince of Wales was their patron, they were driven from thence to Canonbury, Highbury, Blackheath, Dulwich, Bayswater, and other suburban spots, until at last, on the formation of the Regent's Park, they obtained a long lease of those grounds near the Botanical Gardens, in the "Inner Circle," where they still flourish. To this association all the archery societies scattered up and down the country look up as their parent.

We will close this brief sketch with a few remarks on archery from the pen of the Earl of Wilton. "In the present day, archery is largely practised, but only as a pastime, in which both sexes join with equal ardour, and perhaps with not unequal skill; but the butts are now placed at distances so much shorter (than formerly) that no comparison of skill could be instituted between the archers of our own day and those of the last century. Archery can now be looked upon only as a pleasant diversion, giving health and strength, and having the advantage of bringing the two sexes together in an elegant social pursuit. But even now it is an exclusively English sport, for I do not find upon the Continent any accounts of archery meetings, such as are annually held in this country in different localities. In this respect it is strictly national, indicating the love of out-door amusements and pursuits, which is one essential characteristic of the whole English people."

THE "ÉCOLE CENTRALE DES ARTS ET MANUFACTURES."

On Saturday, the 21st ult., was celebrated in the great hall of the Trocadéro Palace, at Paris—as we have already announced,—the fiftieth anniversary of the foundation of the École Centrale des Arts et Manufactures. The importance of this institution, which may be considered as the great industrial school of France, and the significance of the ceremony of the 21st., presided over by the Minister of Commerce, have induced us to lay before our readers some account of this interesting school, originally an emanation of private initiative, but which now holds so important a position among the great institutions of France.

One alone of the original founders of the school, the eminent chemist, M. J. B. Dumas, is still living, and on the occasion of the Trocadéro *fête* he proudly recounted to a large audience the successful labours of the Institute, at the birth of which he had assisted half a century ago.

With the aid of the address delivered on that occasion, and of an important work recently published on the "History of the École Centrale" * (by M. Charles de Comberousse), it may not be uninteresting to enter into some details connected with this practical institution, to the excellent training of which may we not in England in great part owe much of the serious competition that France so pitilessly wages against us?

It was in 1829 that three *savants*, young men then, MM. Dumas, Olivier, and Peclet, conceived the idea of founding the École Centrale, M. Lavallée generously furnishing the funds, and becoming director of the establishment installed in the quiet quarter of the Marais, in the noble old Hôtel de Juigné, which it still occupies, but which it will soon abandon for a new resting-place in closer proximity to its friendly helpmate, the Conservatoire des Arts et Métiers. It is a quiet and suggestive home that the school has occupied for many years, alone disturbed by the historic recollections that float over the superb old seventeenth-century mansion which, in its time, has been occupied by not a few famous personages. Notwithstanding the grandiose façade and courtyards, and the noble staircase and the ghostly remains of sculpture and painting that time has left, tradition has not even handed down the name of the architect of the Hôtel de Juigné, once the admiration of every Parisian and stranger; in turn occupied by more than one enriched *parvenu*, the well-known Marshal Villeroi, the elegant Camargo, of eighteenth-century opera reputation, succeeded,—strange contrast,—by Monseigneur Leclerc de Juigné, archbishop of Paris. It was a quiet neighbourhood that M. Lavallée had chosen, within a few steps of the house where Mdme. de Sévigné penned so many of her affectionate letters, almost within sight of the deserted and cool arcades of the picturesque Place Royale,—a house in which, by the way, the then rising author of "Ruy Blas" and "Hernani" lived,—and but a short distance from the quaint Hôtel Soubise; a quarter which, like our own Bloomsbury-square, in the seventeenth century, had been the fashionable home of the aristocracy.

It was, as we have above stated, in the old Hôtel de Juigné that the École Centrale was installed. At the time of the foundation of the school, in 1829, the national industry, favoured by several years of peace, had commenced rapidly to develop itself in France. But to struggle against competition, each day becoming more formidable, the possession of skilful workmen was not sufficient; intelligent engineers were wanting, such as the École Polytechnique furnished for the Government.

The École Centrale filled a gap in the system of education. As its founders said in their first prospectus, which has remained the programme of the school, "the different classes form in reality but one. Industrial science is one; every manufacturer should know it entirely, under penalty of being inferior to the competitor who presents himself better armed than he. Arts, at first sight of the most different nature, have analogous operations to perform, and often employ widely differing means. The general education of the École Centrale teaches its pupils to introduce into each industry those perfected methods which other nations possess. It tends consequently to introduce into the workshop

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and the manufactory a perfection of processes and mechanism which ensures successful advance and progress." The idea was a just one, and it has since borne ample fruit.

It must not be imagined, however, that the first days of the school were exempt from difficulties. The founders had to combat delays of so discouraging a nature that had they not possessed an unshakeable faith in the utility and future of their enterprise, it could never have survived. Out of 150 pupils who entered the school in November, 1829, and who were so soon dispersed by the revolution of 1830, the *émeutes*, and the cholera, twenty-six alone came out with brevets of capacity. The first professors who had associated themselves with the school displayed a praiseworthy devotion. For many years they were contented with the smallest return for their labours, and it is due to the existence of this sincere devotion, that these courageous men, abandoned to their own resources, succeeded, after seventeen years of incessant efforts, in entering at last a period of peaceful work and fixed remuneration. The school then possessed an ample number of pupils, daily increasing; the enterprise became a successful "business," and in 1855 brought in more than 4,000*l.* profit yearly.

After having thus legitimately reaped the advantage of his labours, M. Lavallée might have sold, at a considerable advantage, the establishment he had founded. But his ambition was nobler: preferring that the institution should not lose its public character, he offered it gratuitously to the Government, and in 1857 the École Centrale des Arts et Manufactures passed under the protection of the State, which wisely continued without change the primitive constitution under which it was established and had prospered.

From this constitution the founders and their successors have never for an instant swerved, observing religiously the principle originally laid down, of the importance of the universality of the instructions necessary for the civil engineer. M. de Comberousse, the author of the work to which we have already referred, has very clearly stated in brief the system:—"To pass through the school is to be ready for every contingency, to be able to meet every difficulty; it is to be able to be at need agriculturist, metallurgist, constructor, or professor; it is to be able to go to-morrow to the most distant part of the world to set up a machine or build a house; to be the brain capable of creating everything, of directing everything, is the proper *rôle* of the engineer, and it is that which the École wishes to give its pupils. It has been said that the school teaches too much. This is to some extent true; the courses of lessons are numerous, but in the existing situation of industry, with the terrible competition of foreign countries, the pupils of the school must know everything, be ready for every emergency when they are brought face to face with the trials of practical life."

In the Institute of France, in the Senate, in the Chamber of Deputies, and in many of the branches of the State, there is more than one pupil of the École Central to be found; but the Universal Exhibition of last year was a triumph for the School, no fewer than 841 pupils having taken part in the Exhibition, and having obtained no less than 340 recompenses. These simple facts, together with many others, which were brought before the public at the fiftieth anniversary of the School, do no little honour to the Institution, which the Minister of Commerce on that occasion promised warmly to support, earning a thunder of applause when he informed the audience of the preparations that had been made for the removal of the École to their new quarters, at present being built.

In these changes let us hope for the safety of so noble and praiseworthy an Institution that no transformation will deprive the School of its broadness of instruction, and its power for good among the working community, which in the present day forms so important a factor in the prosperity of every civilised country.

The Soho Bazaar, with some shops and other buildings in connexion with it, is to be offered for sale at the Auction Mart, by Messrs. Farebrother, Ellis, Clark, & Co., on Wednesday, the 23rd inst. It includes altogether an area of 31,882 superficial feet, or nearly three-quarters of an acre, and the present rentals amount to nearly 7,700*l.* per annum. It is seldom such a site in such a position comes into the market.

EDINBURGH.

THE movement for incorporating the nave in the scheme of restoration of St. Giles's Cathedral has now taken definite form, and the Lord Advocate is to introduce a Bill into Parliament providing for the removal of the congregation of West St. Giles's to a new church to be provided in the neighbourhood. The operations in the south transept are being carried on as steadily as the nature of the work will admit of. This, as already stated, does not embrace the exterior; and we notice that the south and east doorways have been built up in a perfunctory manner.

A movement has been set on foot for the erection of a monument to John Knox in Edinburgh, and committees have been formed both in London and Scotland to promote the movement. The only memorial of the great Reformer which exists in Edinburgh is a small flat stone, to the south of the cathedral, over his burial-place, bearing the initials "I. K." in bronze. It is amusing to see the puzzled looks of visitors when this is pointed out to them by the city guides as Scotland's tribute to the memory of him she professes to revere. To Knox has been attributed the destruction of most of the cathedrals and abbeys in Scotland, the remains of which testify to their magnificence and beauty; but the documents quoted by Dr. Hill Burton, in his recently published History of Scotland, fix the stigma in quite a different quarter, and the devastation of Melrose, Kelso, Jedburgh, &c., is clearly traceable to the explicit injunctions of the Defender of the Faith.

The great central spire of the new cathedral has turned out most satisfactorily. In making this feature of the building so emphatic, Sir Gilbert Scott exhibited his superior appreciation of the capabilities of the site. It is now one of the most conspicuous objects in the city, and, as seen from various points of view, it combines most happily with the surroundings, appearing sometimes in the most unexpected positions. No one appears to have anticipated that it would stand directly in the centre of the line of Princes-street, and form a marked feature in the long vista from the Calton Hill westward. As seen from Corstorphine's Hill, it groups well with Donaldson's Hospital, and, indeed, in every view, save one, the effect is fine. The full bulk of the building is seen filling up the west end of Maitland-street, and from the east end of that street the tower and spire do not combine well with the choir and transepts; but this effect will doubtless be obviated when the west towers are erected, as they will obviate the abrupt stilted effect of the dominating feature, and bring it into combination with the body of the building.

Since our last notice, the Established and Free Churches at Mayfield have been opened. As we hinted, the former is not quite satisfactory as regards exterior effect, and it is not made more attractive by the erection of two hideous iron ventilators placed on the roof. The interior is, however, more satisfactory; the details are such as may usually be found in Presbyterian churches. It consists of nave, aisles, and transept, and was designed by Messrs. Hardie, architects. The Mayfield Free Church is a very satisfactory production, both without and within, and is, perhaps, the most thorough of the Presbyterian churches in the city. Every detail has been carefully studied by Mr. Blanc, the architect, and combines in producing a feeling of completeness not generally found in similar buildings. The windows have been filled in with grisaille glass of a very pleasing kind by Mr. David Small. This glass is much preferable to the crude, strongly-coloured, carpet-like patterns, which have hitherto found favour in churches of this description.

Some time ago a number of adherents of the United Presbyterian Church formed themselves into a distinct congregation upon the basis of total abstinence from alcoholic drinks, the governing motive being the use of unfermented wine in the communion. This congregation meets in the Odd Fellows' Hall, Forrest-road, but they have now secured a site for a church at Argyle-place, Grange, and have called upon several architects to submit designs for the building. The choice of the Building Committee has fallen upon Mr. Mactavish, clerk of works, a member of the congregation, and operations have commenced. The site is a good one, isolated on all sides, and facing the vista of Warrader-road to the west. The plan embraces nave and transepts with galleries, tower and spire at the north-west angle, and hall for weekly meetings to the south. Provision has been made for the introduction of an organ-gallery behind the pulpit, should such be required in the future. Accommodation is provided for a congregation of 800, and the cost will be about 5,000*l.* The style adopted is Gothic after the manner practised about forty years ago.

Another United Presbyterian church is in course of erection at Rosehall-place, Dalkeith-road, from the designs of Messrs. Sutherland & Walker. The scheme does not embrace a spire, and the building is treated in a simple phase of thirteenth-century Gothic.

We understand that Mr. David Robertson has been asked to submit plans for the New United Presbyterian Church at Morningside, a site for which has been secured in the vicinity of the present building. The estimated cost of the new church is about 8,000*l.*

It is said that the United Presbyterians have, by purchasing the West-end Theatre for the purpose of converting it into a synod hall, secured a white elephant. So substantial were the fixtures of the theatre that much labour was required to remove them; and to get some of these away it was found necessary to pull down considerable portions of the walls. In this vicinity a site has been secured, facing the Lothian-road, for a new Board School, at a cost of 5,000*l.*, and the building is now in progress. It is to be Gothic in style, and is designed by Mr. Wilson, architect for the Board, at a cost of 5,000*l.*

An extensive addition is being made to the buildings of the Caledonian Insurance Company in George-street, from the designs of Messrs. MacGibbon & Ross. The original building was designed by the late Mr. David Bryce, and was a mere fragment, consisting of a basement supporting four detached Corinthian pillars, and a horizontal frieze and cornice. The proportions were elegant, and the problem to be solved by the architects seemed simple enough, viz., to adopt the detail, and carry out the presumed intention of the original designer, but they have chosen to make their own mark upon the building by introducing a projecting centre of two attached columns, with an arched doorway of strongly-pronounced Renaissance character quite out of keeping with the remainder. In the rear of the building a general office, 60 ft. square, and lighted by a dome, is to be erected. The upper portion of the building, consisting of two stories and an attic, is to be appropriated to hotel purposes.

THE INDUSTRIAL EXHIBITION, BERLIN.

IT has been remarked by a popular German writer that there are a great many Berlinese gifted with a kind of double nature with respect to their relation to their native town. They admire Berlin and everything appertaining to it, its peculiarities and characteristics, when they are far away from it, and among strangers. But no sooner returned to Berlin, everything becomes mean and inferior. They find fault with anything and everything, even in their conversation with foreigners who may have taken a liking to the German capital, and thus they manage somehow to generate a dislike to their native town both abroad and at home.

Supposing we place such a child of Berlin before the Falls of Schaffhausen, say, and he will tell you that they are most beautiful, but in the same breath he will assert that the sluice of the canal running through Berlin is not so bad either, and that at a time when the water-elder at its banks is in full bloom, sunsets in that spot are of a most surprising splendour. If you lead him into the, in every way, excellent Industrial Exhibition,—which has been brought about by him (the Berlin industrial, that is), by his own unaided efforts,—he will think in the first place of the great International Exhibitions of London and Paris and Vienna; he will remember how he was told at the Philadelphia Exhibition that German industry could no longer compete with those of its neighbours.

Although he may be compelled, subsequently, by the aid of his own eyes, to convince himself of the contrary, he will,—if he cannot find fault with anything else,—extremely regret that this is merely an industrial display, and that there has not been at the same time an exhibition of Berlin art. It cannot be denied that the works of such painters as Menzel, Richter,

Werner, Meyerheim, Gantz, Begas, Knaus, Gräf, the two Heydens, Wieder, Thumann, Gussow, not to mention the sculptors, would form by themselves a very respectable show. But this is merely an industrial exhibition. Unfortunately, this inborn trait of doubting, criticising, fault-finding, of the class of Berlinese we have been describing, is, strangely enough, contagious, which seems to spread also to non-Berlinese, and thus appears to give some semblance of truth to the criticism of our Berlin friend.

But this only by the way. Our purpose is to supply a rapid sketch of an exhibition which has many excellent features. In the West end of the city, not far from the Thiergarten and the Königsplatz, crossed by the large brick arches of the Metropolitan Railway of Berlin, in course of construction, there is a space of moderate size encompassed by a yellow hoarding marked by some red and blue lines, and a few pavilions of carved wood at the entrances. The low hoarding is inscribed with black letters, "Berliner Gewerbe-Ausstellung." Above the hoarding rise a few flagstaffs and the wooden roofs of various galleries and kiosques. If it had not been known what this accumulation of wooden structures was intended for, it might have been taken for baths, or a gymnasium, or a circus.

There is nothing presumptuous, or showy, or ostentatious about the whole exhibition. The stranger finds here no imposing buildings, no glass palace, no Trocadéro, the various kiosques and fountains of which were bought and carried off as elegant works of art, worthy to be preserved, after they had done duty in their first place of erection. The Berlin Industrial Exhibition may be called an exhibition in huts, or lofts, or shanties. But it is a courageous and meritorious undertaking in the present unfavourable times, that the capital of the German Empire, that the at present heavily-tried industrial classes, should have united, if only to show what the city is able to perform in the sphere of industrial work alone. One especially meritorious feature about the exhibition is, that it was all but completed at the time of its opening, a feat seldom accomplished in such displays.

The exhibition is not the first of the kind Berlin has seen within her walls. It owes its existence to the efforts of men who took part in the Berlin Industrial Exhibition of 1849, as well as in the Architectural Exhibition of 1874. Through the initiative taken by those men, who formed a provisional committee, about 800 Berlin manufacturers and others were induced to give their support to the proposed undertaking. A central committee was next appointed, consisting of twenty members, and upon them devolved all the necessary preparations. The exhibition was divided into fifteen groups, each group presided over by a sub-committee. The promoters claimed support from neither Government nor municipality. By their own unaided efforts a guarantee fund of 10,000*l.* was subscribed; and, once started, the scheme soon gained adherents; so that, when the exhibition opened, about 2,000 exhibitors took part in it. The Government granted the use of the site; the Berlin municipality voluntarily contributed the gas and water pipes, as well as a sum for laying out the grounds. Everything else was provided by the undertakers of the exhibition, which, we are happy to state, promises already, at the time of writing, to be a financial success.

The enclosed space of the exhibition comprises an area of about 15 acres, of which 6 acres are built on and about 5 acres used exclusively for exhibition purposes. The exhibition building consists of three long galleries, three others intersecting them, while the high arches of the railway already mentioned form a sort of backbone to the structure, twenty-six of them being dexterously interwoven with the galleries and utilised for the purposes of the exhibition.

It is not our intention to give a description in detail of the various branches of industry represented, or to describe fully the objects exhibited. An idea may be formed of the eagerness with which the scheme was taken up when once fairly started when we state that the building is crammed, and that long before the expiry of the term of application for space more than three times the number for which space could be provided applied for admittance. As an instance of the avidity with which space was at the last moment asked for, it may be mentioned that of the 6,000 shops in Berlin working in wood, only ninety-four exhibitors could be admitted. We propose treating briefly of such branches of the exhibition only as may be likely to interest our readers.

An important branch, architectural ornamentation, had, for reasons of economy, only a limited scope for display. The products of the wood-working industries, however, of art pottery, as well as the goldsmith's and silversmith's art, and of the manufacturer of articles in bronze, fill large and handsome rooms. Two of them, the manufacture of porcelain and metal work, occupy places of honour, close to the principal entrance. In the latter, especially in silversmith's work, Berlin has earned considerable renown at various international exhibitions, emerging from the competition with an Elkington in London and a Christofle in Paris not without credit. In the present exhibition of Berlin may be seen works of art, now mostly in the possession of princely personages, which attracted general attention at those exhibitions.

It has been remarked that the real type of the Berlin Philistine is fast disappearing, and that he is at present slowly but surely changing into a geological petrifaction. But that he should not go down to Hades unremembered, he has left behind him a lasting memento to remind future generations of Berliners of his pre-existence. This is the Berlin stove of Dutch tiles, as it, greatly in request in winter and rather in the way and an annoyance in summer, is to be found in the corner of almost every room in the German capital. But if we look at it in the Berlin exhibition, we notice that it is being transformed into something more in accordance with an improved modern taste. The plain, unadorned stove, almost ugly in its simplicity and virgin white, while still preserving its weighty massiveness, is giving way to forms of more æsthetic value, and is assuming various hues. In this respect Berlin art-pottery has a very wide field.

If it were permissible to speak of predestination in that branch of industry, it might be said that Berlin is the place to bring art-pottery to a high state of perfection. The German capital possesses now a great number of elegant buildings in terra cotta, although, in the face of the preference, still very great, for stucco and zinc ornamentation, the more useful material clay is not yet utilised to the extent it deserves to be employed. Did not the Romans ornament the Campagna of their metropolis with products of clay, the charms of which have resisted the gnawing tooth of thousands of years? Why should the Campagna di Berlino be ashamed of similar ornamentation? The exhibits in this branch of the Berlin exhibition show that the material and means for its use are ample, and that "art" is worthily represented by many disciples whose works fully demonstrate that modest, and for that reason too much neglected, clay may be far more artistically employed than gaudy stucco.

We can only speak in general terms in these columns of an exhibition which, while it strongly appeals to us, for more reasons than one, is yet not near enough to attract from our readers the attention it deserves. The reason of this is that we can only judge it, as it were, from a distance. Yet, as we have already hinted, the exhibition, if it was started with the object of relieving to some extent the defeat German industry suffered at Philadelphia, has fulfilled its purpose. Besides the branches of art-pottery and metal-work we have referred to, the display of porcelain, faïence, majolica, and all the other products of the potter's art alone, not to mention other branches of industry in which Berlin is renowned, would go far to attain this end. Berlin has made a great effort, and has succeeded. Indeed, we could not characterise better the success which has attended the exhibition than by permitting the typical Berlin critic whom we introduced to the notice of our readers at the beginning of this article to speak for himself on an exhibition which is eminently his own concern. His dictum is:—"If we only had known that we could manage such a thing so well, we should have made it still more beautiful!" Let us hope that the next time the industrial classes of the German capital unite in a similar exhibition, they may do so under more favourable auspices, and at a time when a commercial depression without parallel will be remembered only like something resembling a nightmare of which we are happily delivered.

"Another Improvement in Farringdon-street."—We are asked to state that Mr. R. Wheeler acted as clerk of works at the above.

THE NEW "PAVILLON DE MARSAN," TUILERIES, PARIS.

THE old Pavillon de Marsan, with other parts of the Tuileries, was burned in May, 1871, and at the same time shaken to its very foundations by the explosion of the large quantity of powder that had been accumulated there. This pavilion was constructed in the reign of Louis XIV. by the architect Levau, upon the model, as nearly as possible, of the "Pavillon de Flore," the work of Androuet de Cerceau. The Pavillon de Marsan has now risen from its ruins, and is very nearly completed, from the designs of the eminent architect of the Louvre, M. Lefuel, Member of the Institute. His work is rich, without being overloaded. In order to look upon the pavilion as we have represented it, the reader should stand with his back to the railing of the statue of Jeanne d'Arc, upon the Place des Pyramides. From that point he will take in two façades, that of the Rue de Rivoli giving to the left, and that of the Gardens nearly facing him.

The two façades each present a principal projecting mass, which juts out slightly. From the level of the ground to the ridge of the roof the pavilion has a height of 141 ft., divided into four stories if we consider only its exterior aspect, but into three times that number, including the basement and the stories of the roof, if we reckon the superposed divisions of the building. The façade towards the Rue de Rivoli is the most simple; it is composed of a ground-story, with large arched windows, with casements and crowns; in front of these windows is a balcony with wrought balustrades, supported by consoles with lions' heads, and projecting some distance above the trottoir of the Rue de Rivoli. The first story of this façade is pierced by but four windows; a richly-adorned niche, which is to receive a statue, occupies the place of the central window. This first story is surmounted by a second, above which runs a sumptuous entablature, which serves as a base to a decorative subject, composed of a rich attic story with elliptic windows, a large open pediment, carrying another, smaller, but complete pediment, resting on a base pierced by three bull's-eyes, and surmounted by a group sculptured by M. Crauk, representing the Arts and Industry. Below the entablature is a pretty group by Barrias, forming a pendant to that of the Pavillon de Flore, by Carpeaux, and personifying maternal education.

The western façade (towards the Gardens) is richer in ornamentation than the northern one. The windows of the ground-story all open on to balconies of ample proportions; in the first story, the three windows of the projection are separated from each other by columns. Above these is a second series of windows; then the attic, and the pediment of the same character as those of the Rue de Rivoli façade. At the elevation of the attic, above the entablature upon which it rises, statues continue and terminate the decorative motifs commenced by the columns of the first and second divisions of the edifice.

The building is covered by a high roof in the form of a truncated pyramid of lead and slate, with the hips and ridges of lead, richly worked. Under this vast roof there are four series of apartments lighted by dormer windows, which appear very small from below, but which in reality are sufficiently large to admit ample light. The chimneys, finally, which rise above the roof, are those of the old châteaux of the Renaissance, of a monumental aspect, at the same time strongly built and lightly ornamented.

The illustration we give renders it unnecessary to supply fuller details of the architecture of this pavilion, which terminates on this side the long line of buildings erected from the Place du Louvre to the Jardin des Tuileries. The Pavillon de Marsan and the wing which prolongs it in the Rue de Rivoli, a wing which has been considerably increased in depth by the new buildings of the Place du Carrousel, are intended to receive the Cour des Comptes, at present located in the Palais Royal. The offices and halls of the court are approached by two large flights of stone stairs leading to a grand vestibule. The latter gives access on the one side to a great vaulted hall, styled that of the "Pas-Perdus," of a length of 78 ft. and a width of 39 ft.; on the other, to the assembly-hall, 69 ft. by 33 ft. Corridors and staircases in the interior serve the numerous offices of the presidents, vice-presidents, and lower officers of the court.

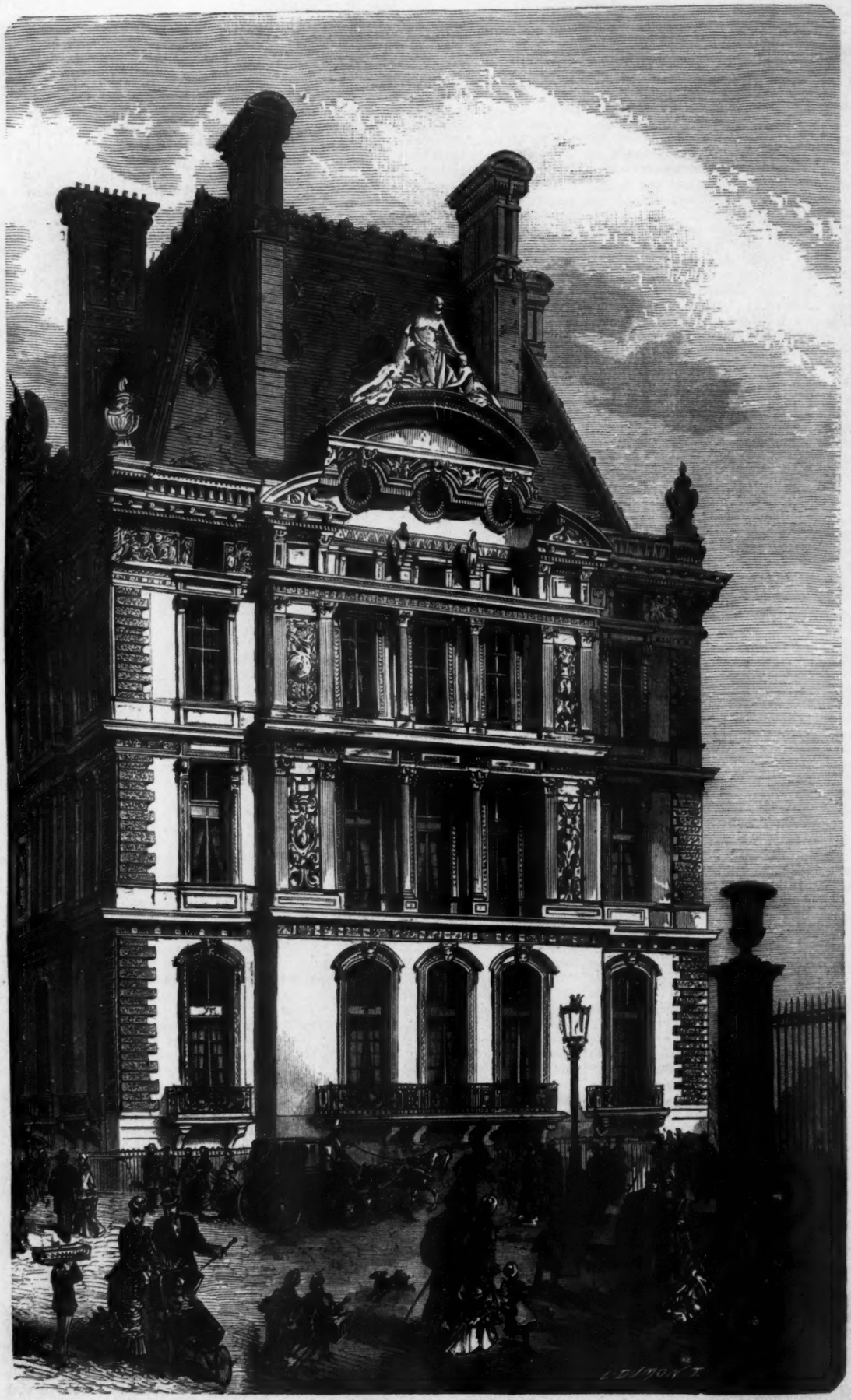
REREDOS, ST. MARK'S CHURCH, HAMILTON TERRACE.

THE parish church of St. Mark, Hamilton-terrace, St. John's-wood, finely situated not only on a gently rising ground, but on a higher level than the roadways on two sides of the site, whence it can be seen to great advantage, was opened in 1847, having been erected from the designs and under the superintendence of Messrs. Cundy & Son, in the Early Decorated period of English Gothic architecture, of which style it affords a good specimen. It is built of Kentish rag, with stone dressings, and has a richly-decorated and well-proportioned western tower and spire, some 170 ft. in height. A well-recessed doorway gives access to the very spacious church, which is of one span, with galleries on three sides supported by slender iron columns and girders. North and south porches near the west end afforded access to the galleries as well as to the ground floor. There was a small chancel and vestry-room at the east end of the building. During the last few years the crowded state of the church has rendered it expedient to increase the accommodation and the means of ingress and egress, both in the body and in the galleries; and at the same time it was felt desirable, both by the vicar and the congregation, to improve the quality of the service. Accordingly, by the help of munificent donations, many works have been undertaken, not only in substantial alterations, but in improvements and decorations. The depth of the chancel has been materially increased in order to afford accommodation for a surpliced choir in place of the performers who formerly sat in front of the organ in the western gallery; a large organ-chamber has been formed on the north side of the chancel, and vestries, furnished with all the usual accessories of modern requirements, have been erected for the use of the clergy and the choir. Additional north and south porches, with staircases, have been added for the convenience and safety of the congregation. Tall crocketed pinnacles have been added to the many well-developed buttresses along the side of the church, and a pierced battlement between them, affording a greater richness to the high and before somewhat bare walls, which, not being relieved by aisles, had depended chiefly upon the traceries of the windows for decorative effect. These works have been carried out from the designs and under the superintendence of Messrs. Benjamin Ferrey, F.S.A., and Son. The inscription, "This Stone was laid 23rd June, 1877, by H.R.H. the Prince Leopold, K.G. R. Duckworth, M.A., vicar. J. H. Good, H. Cotton, Churchwardens," was engraved on the usual "first stone" placed at the east end of the chancel, and records the commencement of the alterations and decorations, the reredos being the crowning feature, now just completed, and of which the illustration gives a good idea. These new buildings, which were consecrated on the 20th of July, 1878, have given an effect of greater dignity and completeness to the eastern end of the structure.

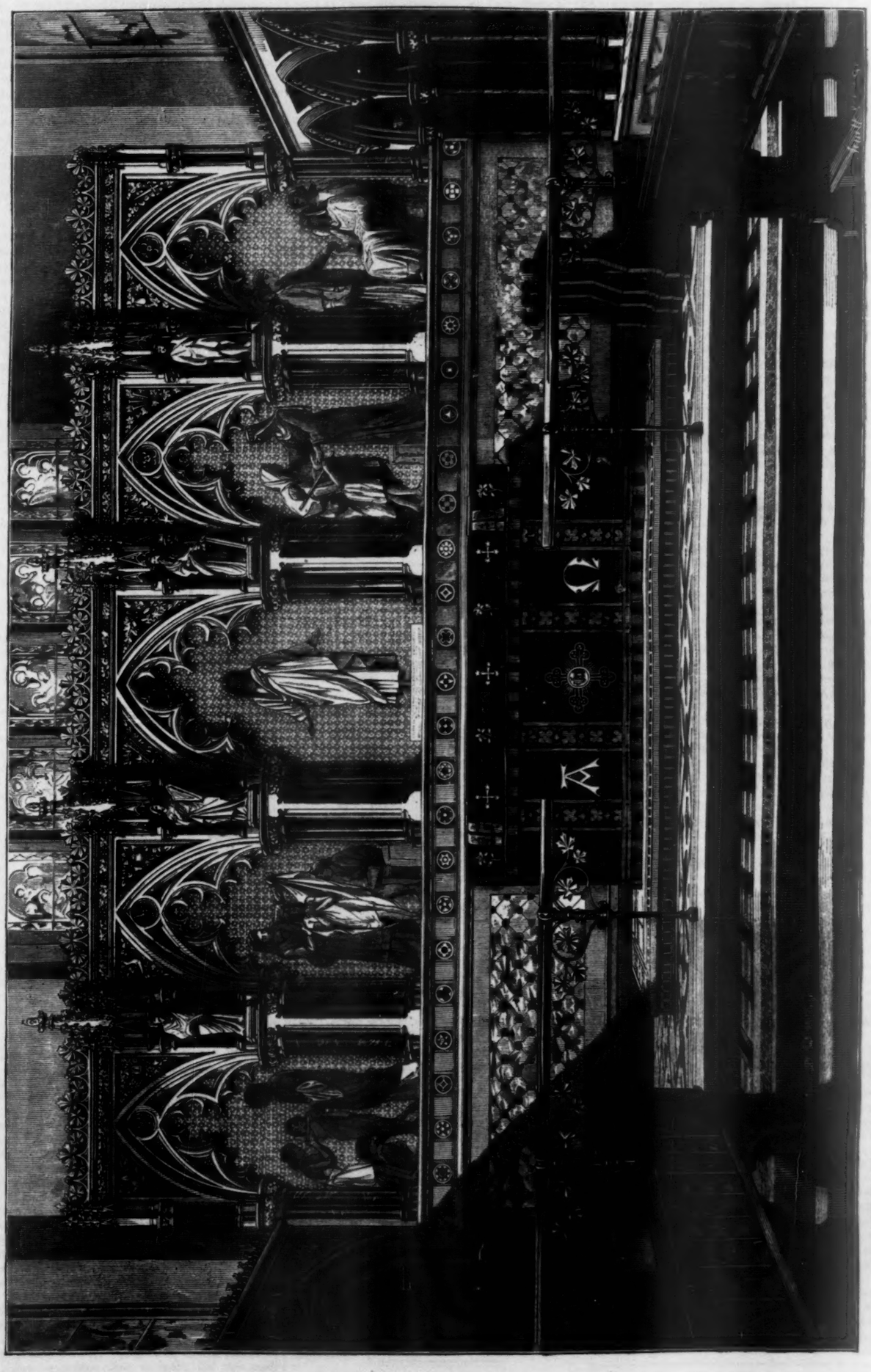
To the interior very much more has been done. Referring to the body of the edifice, in the first instance it may be stated that the whole of the plaster work between the rafters, with its blue ground on which gilt paper stars had been, more or less, securely fastened, in accordance with the prevailing taste for decoration of from forty to fifty years since, and supposed to represent the starry firmament, has been replaced by pine-wood boarding between moulded ribs, and varnished, presenting a bright and cheerful aspect; while the old trussed principals, having been formerly stained, have been cleaned, and present a marked contrast between the old and new works. The gallery fronts had been painted white, and parts of it gilt. This has been cleaned off, and each of the upright boards in the trefoiled panelling of the front framing has been lightened in effect by a "flower slip" perforation, after designs supplied by Mr. E. B. Ferrey. A pleasing effect has thus been produced in a portion of a building which is usually overpoweringly heavy. The former low pews or seats, having stall-ends wrought into trefoil heads and stained oak, have been retained, but the doors have been removed. The whole of the proceeds of the new appropriated sittings are devoted to the maintenance of the surpliced choir. Several of the windows had already been filled with stained glass as memorials; now the centre one on the north side, being a tall two-light traceried window, has been filled with a representation of the meeting of Joseph and his Brethren, executed by Messrs. Lavers & Barraud, being the gift of Charles Drayson, esq., in memory of his only brother. The glass in the large west window, consisting of four lights with trefoiled tracery in the head, is the work of Messrs. Clayton & Bell, and represents the history of St. Mark, while in the lower compartments is depicted the "Nunc Dimittis." It was the gift of the late Mr. John Carlon. The necessary painting of the walls of the church remains to be done, and by the trustees of the church. The font, placed as usual near the western entrance, has been replaced by one of a richer design and beauty, the gift of Mrs. Bartley, in memory of three infant daughters. It is octagonal in form, each face of the basin being a square, the panels in which are filled chiefly with ornamental foliage representing roses, the phœnix with maple-leaves, lilies, the dove with olive-leaves, poppies, the lamb and ivy-leaves, passion-flowers, and the emblem of the Trinity, with leaves and berries around it. The basin stands on a shaft of Irish dark-green marble, having around it colonnettes of red alabaster, with carved caps of oak-leaves and acorns, and with moulded bases. These colonnettes rise from a deep plain stone plinth, having a projecting step on one side, with a wide marginal pavement of glazed coloured tiles. These sculptures are carved with judgment and skill, highly to the credit of Messrs. Underwood & Sons, of Buckhurst Hill, who also designed the work.

The chancel, as already stated, has been materially lengthened, and now affords more suitable accommodation for choral services. The former east window of five lights has been retained with its stained glass, representing our Lord and the four Evangelists, executed by Mr. W. Wailes, of Newcastle-upon-Tyne, which is said to have been prepared for, and to have found a place in, the Exhibition of the Works of Industry of All Nations, 1851, and was acquired by subscriptions. This glass, though perhaps fairly good for its time, is now far behind the expectations of the present day. It has, therefore, been decided to supersede it by an entirely new window, much enlarged in size, and of a design which will better accord with that of the reredos. The glass, representing the *Te Deum*, will be the work of Messrs. Clayton & Bell, and is to be placed as a memorial, being the gift of three members of the congregation. Below this window is the reredos, which extends the whole width of the chancel, being 22 ft. in length and about 12 ft. in height. It consists mainly of a dado 4 ft. 10 in. high, and above it an arcading of five divisions, each having elaborate foiled tracery, delicately carved. Above the piers are niches with carved canopies, supported on colonnettes of green Kilkenny marble, covering white alabaster statuettes, well detailed, the whole surmounted and completed by a cornice and brattishing of vine-leaves, all delicately carved in Caen stone; and interwoven in the work are the Scriptural symbols of the suffering,—the dice, spear, and crown of thorns. The dado commences at the pavement with a plinth of red Dumfries stone; above it the surface is enriched with inlaid work of lozenges of Devon alabaster separated by dots of dove-coloured marble, all surrounded by a plain border of a light-toned grey stone. Above this is a broad capping of dark Ipplepen marble, inlaid with designs arranged in squares and circles of rich marble mosaic work, the upper mouldings forming a ledge from which the reredos proper commences. Colonnettes of red Devon marble, on green Connemara marble bases, carrying the arched perforated tracery, form, with Caen stone piers, divisions separating the compartments or panels. These spaces are filled with paintings by Mr. Edward Armitage, R.A., a member of the congregation, who has exercised great generosity, enabling the vicar to conjoin high art with the excellencies of practical workmanship. In the centre panel is a figure of the Redeemer; while subjects representing works of Charity and Mercy occupy the four side panels. These paintings have been executed on enamelled slate of about 1¼ in. in thickness, and to prevent any chance of damage from damp they are kept clear of the wall; the stonework of the reredos having been ingeniously arranged to allow of the slabs being let down into their places behind the perforated tracery. The background of the subjects is a diaper composed of light-coloured gilt crosses and circlets on a light-toned ground, as in paintings of the early Continental schools. In the centre panel is the figure of the Redeemer, clothed in a white robe, with the arms slightly extended, conveying the words of the inscription at his feet:—"Inasmuch as ye have done it unto one of the least of these, ye have done it unto me." There is also another inscription cut on the projection of the marble capping to the dado, stating that this panel is "In memory of Alexander Eugene Mackay, M.D., R.N., Inspector-General of Hospitals and Fleets, who died March 10th, 1877, aged 55 years. This painting is placed by the medical officers of the Royal Navy as a tribute of respect for his high character and blameless life." The subject of the painting on the right-hand, looking at the reredos, is "A stranger, and ye took me in." This has a similarly placed inscription, stating that it is "In memory of Henry John Bartley, born August 26th, 1826; died November 22nd, 1873." The next one, "Sick, and ye visited me," is placed "In memory of Rosie Trendell, who died May 17th, 1877, aged 18 years. 'She being made perfect in a short time fulfilled a long time.'—Wisdom iv. 13." On the left-hand side comes the subject, "Naked, and ye clothed me"; and lastly, "I was an hungred, and ye gave me meat." The design for this subject was suggested to the artist by an incident stated to have occurred during the Madras famine, which was raging at the time the artist was at work. The hungry are being fed with rice, and one is eagerly scraping up with the hands that which has fallen at the feet of the donor of the food. It will be unnecessary to describe the composition of each subject, as the illustration is sufficiently explanatory; but a few remarks on the colouring and general design, in the words of a brother artist, printed in the local *Parish Magazine* of October, 1878, may be usefully quoted:—"In estimating the merits of Mr. Armitage's pictures, it would be as well to take a glance at the nature of the undertaking,—at the scope and liberty of treatment which an artist may claim who resolves to decorate a sacred edifice. It is a task which men have been striving at for centuries, and it has followed, as was inevitable, that individual impulse has become fettered by conventional and popular examples,—that certain types have been created any deviation from which would strike some people as non-ecclesiastical; others, as daring and dangerous innovations. It is a great credit to Mr. Armitage that he has originated a very appropriate subject for altar decoration, without at the same time departing from certain conventionalities inherent in his task"; and he continues, "nor is the artistic treatment of these pictures behindhand of the initial idea. The design has all the precision and severity demanded by an architectural sitting, and the colouring has been most happily chosen with a view to enhance the richness of a gold background. The central picture necessarily entailed a treatment of white draperies, and, to vary and relieve monotony, the painter has skilfully introduced a dark stripe. The two pictures on the left are, so to speak, symphonies in grey, blue, and red, and blue, green, red, white, and pale blue, upon their field of gold. Those to the right present, perhaps, the finer harmonies in colour. In the first is green, grey, and white, with a single touch of gold; in the second is grey, red, white, and amber, producing, with the gold, a rich and subdued effect." Another writer, whose description of these fine works of art has been contributed to a journal in a foreign land, fairly comments on the style in which they are painted by the artist. "They exhibit," he writes, "a peculiar phase of English art as ruled by North Italian ideas combined with the realism of the Düsseldorf school. The figures in all the panels have that slenderness of form and rigidity of drapery, which is such a characteristic of the spiritualised treatment of Giotto and Cimabue; all the fleshy robustness of the later masters of Italian and Flemish art is wanting, and there is seen, as it were, only ideals of humanity clothed with visible forms. Although thin and somewhat attenuated, none of Mr. Armitage's creations are conceived in that weird shrunk type which has recently prevailed in the *soi-disant* 'pre-Raffaellite' designs."

Before leaving this reredos, it should be further mentioned that the four statuettes representing Moses, Isaiah, David, and John the Baptist, carved in white alabaster, are the special gift of the Misses Smith, and that Mr. George Smith, F.S.A., and family have contributed fully three-fifths of the cost of this interesting architectural work, the design and execution of



THE NEW "PAVILLON DE MARSAN," TUILERIES, PARIS.—M. LEFUEL, ARCHITECT.



REREDOS, ST. MARK'S CHURCH, HAMILTON TERRACE, ST. JOHN'S WOOD.—DESIGNED AND EXECUTED BY MESSRS. J. UNDERWOOD & SONS.

which is due to the taste and skill of Messrs. J. Underwood & Sons, of Buckhurst Hill, Essex, who, it may be mentioned, have also carved the beautiful alabaster pulpit at Holy Trinity church, Bishop's-road, Paddington. To these gentlemen is also due the credence-table formed in the north wall; it has a deep hood-moulding of Devonshire alabaster, with slab and sides, the back being formed of a panel of Giallo antico inlaid with marbles, pietra-dura work, representing a vase with lilies, passion-flowers, vine, and wheat, emblematical of the Passion. This is also the gift of Mrs. Bartley, already twice mentioned. Above this credence-table is a three-light window fitted with stained glass, the work of Messrs. Clayton & Bell, representing the healing of the impotent man at the Beautiful Gate of the Temple. It was inserted as a thank-offering from the late Mr. J. H. Goetze, and Mrs. Goetze. On the opposite side of the chancel is another three-light window, the glass of which is also the gift of Mr. and Mrs. George Smith; it represents Our Lord seated in the house of Mary, who is humbly kneeling at His feet, in one side-light, and Martha in the other side-light, who, with outstretched hand and a pitcher under her left arm, is protesting against the absence of Mary from her duties. In the compartments of the tracery are angels bearing emblems of the Passion. This glass is the work of Mr. Alexander Booker, of Wells-street, and displays merit in design as well as execution. The drawing is excellent, and the colouring, though rich, is so skilfully subdued in tone as to present an harmonious whole, reminding one more forcibly than is usual with painted glass of the scarcely ever attained merits of old work. The same hand has painted the St. Cecilia in the sexfoil light of the window in the chancel gallery, and it appropriately faces the organ.

Under this glass window the wall is pierced for three sedilia, but as these are shortly to be removed, it will be well to notice that this side of the chancel will be fitted up with three sedilia formed of alabaster, separated only by detached pillars carrying arches and groined canopies, completed by a cresting under the window, carrying round that of the reredos, but at a somewhat lower level. This work will be continued up to the choir seats, and will include a new door of oak, leading into the vestry, which, with new panelled wainscoting behind the choir seats, are all to have enriched "linen pattern" panellings. Above the seats to the prayer-desks the walls will be decorated with alabaster work, finishing at the chancel arch. On the north side the wall is, through the munificence of Mr. J. H. Good, completed, between the credence-table and the organ-chamber, by an arcading of light and coloured alabaster, finished with a carved cornice and cresting, corresponding with that on the opposite wall. The greater portion of the expense of the work on the south side will be borne by Mr. George Smith and his family.

From this description some idea may be gained of the ultimate richness in decoration of this part of the edifice, especially when the now plain-coloured walls are adorned with stencil-work patterns, and the present plain boarded wagon-headed roof, which is divided into panels with moulded ribs, having bosses at the interstices, is likewise adorned with medallions in rich colours. The scheme for these portions is under consideration.

The communion-table, of carved oak, is raised by three steps, the pavings of which are decorated in patterns of glazed tiles of Messrs. Maw's manufacture, from the designs of Mr. Benj. Ferrey. In the chancel floor between the choir-seats, the red and yellow patterned tiles, which formed the pavement to the first chancel, have been reused. These choir-seats were designed by Mr. Ferrey; they are of oak, of substantial manufacture, and enriched with appropriate carving. They are the gift of Mr. J. H. Good, who had been for many years the vicar's churchwarden. This pavement is raised by three stone steps above the floor of the church; at the north end of them is the pulpit; at the other the double prayer-desk. This is of Caen stone, very richly carved; the front is formed by perforated arching in the lower part, which, with alabaster colonnettes, supports a diapered coving, on which is laid a slab of Greek red marble, encompassed by an alabaster border of a deep brown colour. This desk has a Latin inscription recording that it, with its two stall seats of Caen stone, backed with carved oak, were the gift of the present esteemed vicar. The Caen stone pulpit is raised sufficiently high by a few steps ascending from the chancel, so that the occupants of the galleries can see, as well as hear, the preacher; in fact, there is no difficulty as to seeing either the preacher or the reader from any part of the edifice; for as the church is one room, without pillars or arches, there can be no complaint on that score; and as to hearing, this church appears to be one of the few examples of a room wherein all can hear alike well, and is without an echo. It would be a happy circumstance could architects foretell the acoustical results of their designs; some slight unintentional difference in construction or material in two apartments intended to have the same happy result in the properties of sound will mar the best expectations of the architect; how much more, then, two entirely differing designs. This pulpit, designed by Mr. J. H. Good, has six panels, filled in with mosaics by Dr. Salviati, after designs by Messrs. Clayton & Bell, representing the four Evangelists, St. Peter, and St. Paul; while the panels at the side of the steps are of inlaid marbles, designed and executed by Mr. Underwood. The brass hand-rail is of good wrought and cast work, having at the bottom a lion, admirably adapted from one at the foot of a staircase in the Doge's Palace at Venice, the typical emblem of the patron saint of this church as well as of Venice. The whole was presented in 1873 by a family in the congregation, in memory of their father. The brass eagle lectern was another presentation made by Mr. Good. It is of the same pattern as that presented by the Princess of Wales to Sandringham Church, and was executed by Messrs. Hart, of Wych-street.

The organ, placed on the north side, is now considered to be, as to quality, one of the finest church organs in this country. The old one, by Messrs. Gray & Davison, which was originally placed in the western gallery, has been not only greatly enlarged, but entirely re-constructed by Messrs. Walker & Son, at a necessarily large cost, under the direction of the parish church-warden, Mr. J. E. Street, of Clifton-hill. It now contains fifty-two stops and has three manuals. The chamber, built out purposely for this instrument, is 19 ft. by 16 ft. and 23 ft. high to the roof plate; these dimensions will, without entering into further details, enable a lover of organs to form a conception of the size of this grand instrument. The lower portion of the front, which is 12 ft. 6 in. wide, is of panelled oak, having above the manuals a coving to support the row of small pipes nearly filling in the arched opening above; these pipes are formed of the spotted metal now in vogue, and will be so left. The side arch is filled in with similar pipes, of a larger size, the under portion by pine-wood framework, the gift of the vicar, the panels of which are perforated with designs to accord with those of the gallery front; they are best seen in connexion with it by those persons sitting at the lower end and opposite side of the church.

Any one who may be induced by the illustration and this description to visit the church to see the paintings and other art works and judge for themselves, or may attend the services, should notice the method of ventilation adopted by the designers of the edifice. In each of the sloping cills of the windows, on the inside and much above the heads of the congregation, is a small flap, which on being raised admits a current of fresh air into the building. This would appear to be on the same principle as the one lately advocated by Mr. Tobin with great advantage to the comfort of crowded audiences wherever it has been introduced. Eight fair-sized ventilators in the boarded ceiling convey away the heated atmosphere. A low temperature hot-water apparatus, placed under all the pavements, is provided for warmth in cold weather.

Besides the workers already mentioned in this undertaking, the names should be noticed of Messrs. Goddard Brothers, of Farnham and Dorking, as the builders for the recent additions; while Messrs. Myring Bros., of Blenheim-terrace and Ealing, executed the alterations to the gallery fronts. The congregation are also most deeply indebted, it is almost unnecessary to add, to their worthy vicar, the Rev. Canon Duckworth, for the promotion and constant supervision of these great improvements, and the exercise of much judicious taste during the operations.

Architectural Books.—Mr. Quaritch, of Piccadilly, is offering for sale a number of books from the library of the late Prof. Cockerell, R.A.

THE MOSQUE OF CORDOVA.

IN my letter, which appeared in the *Builder* of the 24th of May, p. 582, I drew attention to certain features of the original plan of the mosque of Cordova, and to the alterations and enlargements of two subsequent periods. In the plan now published, these are indicated. It will be noticed that the original mosque was on a very grand scale compared with other mosques of that period, and therefore it may be of interest to refer to some of these.* First of all should be considered the mosque of Kairwân, in Moorish Africa, the city of the Emir Musa, one of the conquerors of Spain. A plan of this mosque is given by Mr. E. Rae in his "Country of the Moors," together with a most interesting description. The mosque, like that at Cordova, underwent successive changes and enlargements. It was founded by the Emir Okhbah between 667 and 677; it was razed (excepting the Mihrab), and rebuilt by Hassan-ibn-Nouman in 691, and again in 727, and in 777 it was pulled down and rebuilt; and, lastly, in 827 it was again razed and reconstructed,—still, however, preserving Okhbah's Mihrab, and thus it still exists. It has eight aisles, extending north and south, and eighteen aisles (each about 14 ft. wide), running east and west; the principal aisle, leading to the Mihrab, being, as at Cordova, wider than any of the others. On the west side is the great court, about 300 ft. by 240 ft., with a double aisle all round it, with double arches (one over the other) on the west side, similar to those at Cordova. The internal pillars are of rich marble, with Corinthian capitals.

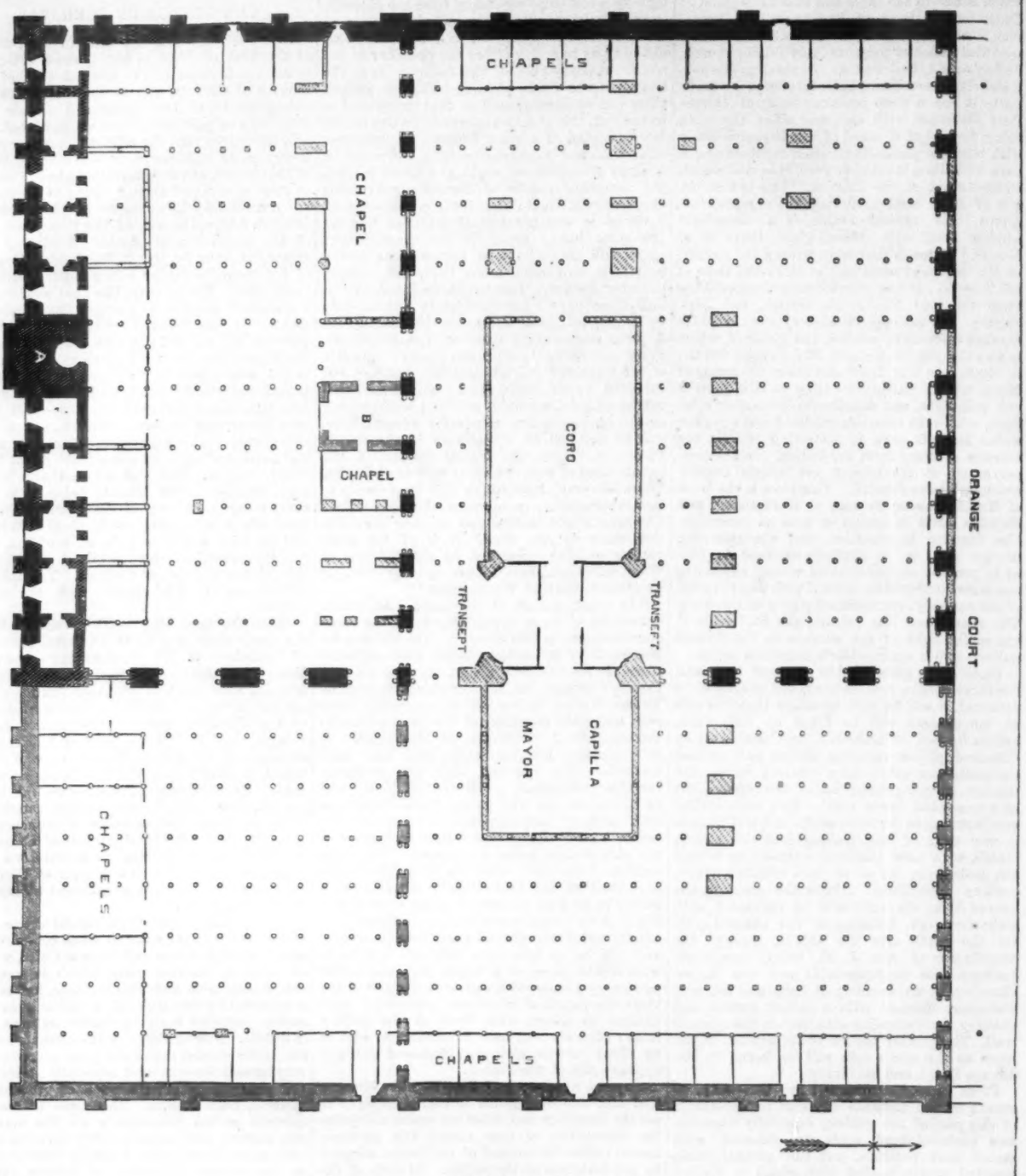
From Kairwân issued forth to conquer Spain the Emir Musa and Tarik, and after the battle of Guadelete, in 711, Cordova fell; and when Musa was summoned to Damascus, his son Abd-del-Aziz became governor, and another son the governor of Kairwân. At once a portion of the Christian basilica was altered into a mosque, and in 786 the present building was commenced by Abdu-r-râhman I., who determined it should equal the finest mosques in the East. He evidently followed, with this intention, the original type of the mosque of Kairwân, though he exceeded it immensely in size. The successive enlargements of Hakem II. in 961-67, and of Al-Massour in 981-1001, rendered, without doubt, the mosque of Cordova, on the whole, the most magnificent building of the Eastern world.

In one point, however, it (as did the mosque of Seville) fails in grandeur when comparing it with that at Kairwân and those at Cairo, viz., in its outer or cloister court, which is small in comparison with the vast building, and is only surrounded by one aisle, of a rather poor character, probably built by Abdu-r-râhman III. in 912-61. Now at Cairo, in the oldest mosques, the *double* cloister round the great court forms a very grand feature, and especially grand are the cloisters of the mosque of Ahmed-ebn-Touloon, built in 879. There are fifteen and thirteen arches respectively on the northern and eastern and western sides, forming aisles each about 20 ft. wide. A similar cloister exists at the mosque of Sultan el Hàkem (dating about 1000); and at the mosque of Amrou, of about the same period, the cloisters form three aisles on the north and south sides, and one on the west side.

These mosques, although their cloister-courts are so fine, are not themselves on such a grand scale as those of Cordova and Kairwân. The mosque of the Touloon has seventeen aisles from north to south, and five aisles from west to east; that of Amrou has six aisles from west to east, and in it are used old Roman columns and capitals of various sorts and sizes, while the former is built in a beautiful pointed style quite unlike the Cordovan work.

In one very important particular the mosque of Cordova now falls short when comparing it with the previously-mentioned mosques, for its ancient painted roofs have been destroyed, and hideous plaster semicircular ceilings (with skylights!) have been substituted for them, interfering most fatally with the original design. At what date these were put up, and the interior altered, seems uncertain; possibly it was done comparatively recently, for Gwilt, in the 1854 edition of his Encyclopædia, says, "the ceilings are of wood painted"; and further goes on to say,

* The walls, engraved solid show work of Abdu-r-râhman I., A.D. 786-793; dark parts, Hakem II., A.D. 961-967; lighter parts, Al-massour, A.D. 988-1001; parts dotted, Christian insertions.



A. MIHRAB. B. CHAPEL OF VILLAVICIOSA.

THE MOSQUE OF CORDOVA, SPAIN.

"the decorations throughout are in stucco, painted of various colours decorated with legends and occasionally gilt like the churches of the Lower Empire." Now, alas! nothing of the sort is to be seen, the whole interior, excepting a portion of the southern part, is covered with whitewash and yellowwash, the only portions remaining intact, save for the fading of the colours through age, are the beautiful Mihrab (A) and the adjoining mosaic covered chapels.

At Kairwân it seems that the ancient coloured roofs remain, and at Cairo, in some instances, the ancient decoration exists in a very perfect state, notably in the thirteenth-century mosque and tomb of Sultan Kaloon, and in the mosque of El Ghorée, where the colouring of the woodwork is of the most beautiful and harmonious tones, harmonising with the marbles of the columns and with the rich white marble pavement inlaid with red and green and other coloured precious marbles in the "opus Alexandrinum" style. At Cordova a similar pavement is said to have existed, or to still exist under the common red brick pavement. We may judge, therefore, how glorious a building both in its scale and decoration the mosque of Cordova must have been up to the fall of the Moslem power.*

R. H. CARPENTER.

A GLANCE AT LLANDUDNO.

To those who have for any considerable length of time seen nothing more lively than the ordinary close towns of North Wales, the sight of Llandudno is like a sunbeam in winter. Its English aspect, and some of the graces of architecture, unite with the pure atmosphere and the various natural features of sublimity and beauty around in buoying up the spirits of the visitor; and suggest that it must be truly a city of refuge to the escaped denizens of the large towns. It seemed to me like a cleaned and brightened bit of London brought to the seaside for the benefit of its health.

In the following remarks, penned during and after a very brief visit, I meddle not with its geological, botanical, or ornithological attractions, or its ancient remains, but confine myself to its general aspect and capabilities.

Enthroned as it is amid romantic and sublime spectacles of nature, and scenes steeped in beauty, surrounding a semicircular bay between two headlands, something like modern Alexandria on the peninsula of Pharos, it appears to me capable of becoming not only a first-rate watering-place, but a great city for perennial residence. The lines have fallen to it in a region worthy of Art's choicest gifts, and where it has a rare opportunity, in concert with nature, of

* I cannot give a scale with the accompanying plan; none is given with Murray's, and we had to take that to work on. The aisles which run north and south are each about 20 ft. wide.

rivalling some of the most celebrated of architectural scenes; which it will, if it rise to the silent music of the ocean and the mountains around.

Young as is Llandudno, however, it has already made some mistakes, on which it may be useful to comment. There is, in the first place, too much cement and too little stone and brick visible, and consequently too little variety of colour. And with an imposing display of columns and entablatures, there is not as much originality as could be wished; or, in other words, there is too much sameness of design, which monotony of colour renders more apparent. To which may be added, the churches are Early English, or some past-century Gothic, instead of nineteenth-century Gothic, the century we are at present in.

Here, too, are some of the worst disfigurements of old towns of another kind, which have a disenchanting effect upon the eye. One is the ragged gable-end left on almost every block of building, with brick toothings and fire-places in anticipation of a future next house. Another, the omission of architectural features at the back of the house, causing that part to be not much more sightly than the gable-end, and without proper keeping with the front. Approaching Llandudno from behind, where some back slums are congregated, the aspect of the town is that of a series of bricklaying and building yards, and is calculated to give an unfavourable impression of the place. This, an evil anywhere, is especially objectionable in a holiday place like Llandudno. If the ancient Greeks in their temples finished each seen and unseen part, because the gods are everywhere, we may surely pay some attention to parts that are seen by both gods and men. We ought also to construct the smallest houses as substantially as the largest; as they undergo the same wear and tear of the elements, and have usually less gentle inmates. This has not been done at Llandudno.

Another mistake is the absence of classification evinced by the rather startling spectacle on the day of my visit, of the carcass of a sheep displaying itself in a window of a palatial-looking row of houses. A further mistake is that due warning has not been taken from older cities which have become diseased for want of lungs in the shape of open spaces; which are not only valuable in a sanitary point of view, but highly pleasant and convenient, without being planted or railed in, as sites for memorial statues and monuments.

But the greatest mistake that has been made in Llandudno, and which forms the head and front of its offending, is the abutting of the principal feature of it, the crescent, immediately on the brink of the ocean, instead of linking it by intermediate natural features. I doubt not the founders had ample precedent in other seaside places for putting the terrace where it is; but it is nevertheless a mistake. A long line of lofty street-houses is too conventional an object for such a scene, and abutting so closely upon the sublimest object on earth,—the ocean; and a sensitive eye would half-wish that old Neptune, with a blow of his trident, would drive it a furlong further back, and break it into detached houses or groups, and dot the restored green margin with some choice morsels of architecture, half hidden in foliage. As it is, paradoxical as it may seem, the lofty terrace, if it does not dwarf it, takes something of sublimity from the sea itself, which certainly looks much finer at Penmaenmawr, and at Beaumaris and Colwyn Bays, than at Llandudno.

This mistake can hardly be rectified. Most others, however, may be, and Llandudno has not only time to amend her ways, but to show the world how a city should be built, and set in its surroundings; which it should be worth her while to do in a pecuniary point of view, as I presume money spent on rendering a watering-place an abridgment of all that is delightful in architecture is well invested. In ancient times persons sailed to Cnidos with no other object than to gaze on the Venus of that place. The statue, it is true, was by Praxitiles, but its power of attraction shows what may be hoped from the presence of fine works of art; which should the more attract invalids and others, because they are good for health, through the constant entertainment they afford the mind, and so, aiding to the Hygeian appliances of the place, which is in accordance with Lord Bacon's recommendation to invalids, in his Essay on Health, of a poem or a prospect, and studies that fill the mind with splendid and illustrious objects.

There is yet time for this; but as the child is father to the man, the sooner it is commenced the better, and the infant town be trained in the way it should go.

To make it really a pleasant place to its inhabitants and attractive to visitors, it must be formed more on the model of some ancient cities like Chester than on new ones like Birkenhead, which evidently has had influence on Llandudno, and which, with its long and broad streets stretching each way to the visible horizon, is not a comfortable-looking town. Such streets have a dreary look unless relieved by great buildings or projecting features, as in some main streets of London, Edinburgh, and Dublin; and do not wind themselves round the hearts of the people like those of Chester, or the High-street of Oxford. Many American cities, I believe, are similarly faulty.

Far be it from me to recommend narrow or tortuous streets. I would have a sufficiency of broad and straight ones for thorough ventilation. But I well know that it is less by such means that the air will be preserved pure, than by abstaining from polluting it, by sending refuse matter into the bowels of the earth to return pestilential exhalations.

To recur to the city just named. The Cestrians, as a rule, are strongly attached to their city, and "drag at each remove a lengthening chain" when compelled to leave it; which is not surprising. There are delightful nooks and corners in it that are worth all the grandeur of renovated Paris. In Chester, and on its outskirts, are localities which remind one of Byron's description of the last residence of Petrarch:—

> "Of that complexion which seems made
> For those who their mortality have felt,
> And sought a refuge from their hopes decay'd."

The Rows of Chester, though unique, are highly suggestive; and it seems to me surprising that the Row-principle, holding out the advantage, as it does, of two heights of shops, and great power and beauty of light and shade, has not long ago been adopted in new towns, or new districts of old ones; which it might be without any deficiency of light in the principal shops, the one defect of the Chester Rows.

A smaller specimen of a cheerful place, eminently calculated to attach its people to it, is Ruthin, in the vale of Clwyd, which has some spots and houses quite romantic and joyous. It covers a small hill, the crowning table-land of which is barely sufficient for the central market-square, in which there are not two houses alike in design or colour, and from which all the streets radiate, and descend, save one leading to the old castle, which is level.

But to return to Llandudno: that town unless guided by a pre-conceived and drawn-out plan, which is as necessary to a city as to a house, will become a labyrinth. It should grow from some dominating edifice as its nucleus, which will give the keynote to both public and private buildings. This edifice should doubtless be a place of worship, as it is in cathedral cities. For the rest, every house built, however humble, and every shop should increase the attractiveness of the place, and be different in design from all others, as its occupants must differ in character. Every public building, too, should have its distinct and proper character according to its destination. With all buildings abundance of openwork sheltering features should be interwoven; nor should skyline be uncared for by the authorities.

Whatever the architectural style, a town should be such that an enlightened traveller passing through it should recognise or feel the same unity and variety of form and colour he saw without in nature; and perceive in it nature's architectural antitypes and analogical resemblances. Like the scenery he left, it should be picturesque, *i.e.*, present material for a picture. Moreover, in a congregation of houses called a town, where nature to a great extent is necessarily excluded, all the graces of architecture, sculpture, &c., should be brought to compensate; which it is pleasing to think they are capable of doing. In forming a city, we engage in no vain struggle as we should in contending with nature on her own ground. In art we have a spiritual leverage, as it were, which gives us the advantage over material creation. Real architecture alone breathes a music like the music of the spheres.

> "There *is* a pleasure in the pathless woods."

But to most cultivated people there is more pleasure in the crowded streets of a beautiful city, full of all that art can contribute to its embellishment, and a pleasure in the highest degree refining and elevating. We consider educational institutions of various kinds as all-important in a city; but we may make the whole place an educational institution by composing it of fine architecture and sculpture; which have the advantage of being incessant in their operations on the mind and character of their beholders. Poetry, when not read, lies inactive, as does music when unplayed; but architecture, painting, and sculpture are always operating on the minds of those about them. Ideal and portrait statues people the place they are in with a higher population,—a sort of spiritual aristocracy,—which, however degenerate the times, maintain their purity, and refine the living. A noble and solemn architectural pile, with its heaven-pointing spire, may have even a religious influence; and on the minds of people who never enter it.

I suggested above that money would be well invested in rendering Llandudno a beautiful town. Let me add that money alone will not do it. A city can only grow really beautiful from the beautiful art-loving mind within it, of which it becomes the material exponent.

> "The soul is form and doth the body make."

All that can be done towards breathing into it this soul is to cultivate the natural taste of the people by the establishment of art-appliances, and galleries of painting, sculpture, and architecture. Let me suggest these; and also that grand invention of the nineteenth century, the Free Public Library, than which, in the centre of a town, I believe no more powerful engine could be devised by man, not only for cultivating the intellect, but for emptying the haunts of vicious indulgence of every kind. Let me suggest also a Botanic and Zoological Garden capable of unlimited extension, which, with the marine parades and drives and mountain-walks, should render People's Parks unnecessary, and would make Llandudno as attractive and pleasant in winter as in summer, to which it appears the climate presents no bar.

There is no insurmountable obstacle to its rivalling Florence or Naples. It has natural scenes, as great and inspiring: we might, in the spirit of Wordsworth's reference to the Cumbrian, ask—

> "What was the great Parnassus' self to thee,
> Mount Snowdon?"

This is the more important, inasmuch as Llandudno may be regarded as a sort of leaven introduced into Wales, upon the towns and architecture of which, whether it exhibit an example of genuine beauty or of affectation, it will have an immense influence, till it leavens, as it were, the whole lump. Hitherto the Welsh Muses, so rife in all times, have done nothing for Welsh architecture. Nor has the grand scenery had the influence it ought to have had. For example, the beautiful Bay of Beaumaris, the subject of fine poems, is nowhere reflected in the town seated on its banks.

In conclusion, let us hope that no mistake will interfere with Llandudno's prime mission to preserve and shed around the balm of health. At present, while into the mind of the visitor

> "The visible scene enters unawares,
> With all its solemn imagery,"

the fresh air, as uncontaminated as the scenery, enters into his lungs,—a commodity which the growth of towns, with their various sources of pneumatic deterioration, is every day rendering more scarce. Few imagine how far the foul air of these manufactories of it is blown by the wind, to the pollution of spots deemed pure; or how many rural districts themselves, where everything conducive to health might naturally be expected, have become hot-beds of disease. Let this fresh air be let alone. The town may be so devised that, instead of being a plague-spot on the earth, it may be more healthful than the purest rural district, inasmuch as it will be dryer and warmer; so that in future time, instead of people going out from town to country to sleep, they will be led to do the reverse,—a great advantage to the commercial population.

If Llandudno fail in this, its people, surrounded by the purest air in the world, the chief essential of health, will be in a predicament something like that of Tantalus in the infernal regions.

SAMUEL HUGGINS.

Suffolk-Street Galleries.—The Society of British Artists has decided to open the present exhibition every evening from seven to ten o'clock, commencing on Monday, the 21st inst.

THE BRISTOL AND GLOUCESTERSHIRE ARCHÆOLOGICAL SOCIETY AT CHELTENHAM.

THE three days' meeting of this society at Cheltenham commenced on Tuesday, the 8th inst. The council and some of the members of the society having been entertained at luncheon by the Mayor of Cheltenham at the Plough Hotel, the annual business meeting was held in the Ladies' College, Mr. C. J. Thomas, the retiring president, occupying the chair. The secretary (Mr. P. Hallett) read the fourth annual report of the council, which stated that at present there were 506 subscribing members, as against 498 last year. During the year twenty-two losses had occurred through death or resignation, and twenty-eight new members had been elected. With regard to finance, many subscriptions were still outstanding,—some of the arrears, indeed, "having a more ancient date than appears to be fitting, even in an archæological society"; but the current account nevertheless shows a balance in favour of the society of 225*l.* odd, from which amount, however, would have to be deducted the cost of producing the annual volume. Since last year's annual meeting at Bristol, in accordance with a resolution then come to, the whole of the life-subscriptions, amounting to 414*l.*, have been invested in Consols, and it is intended that the principal of this investment shall, as heretofore, be untouched by current expenditure. During the past year the council has established correspondence relations between the society and many of the more important archæological associations of the country. The acquisition of a large number of the volumes of "Proceedings" of the several societies referred to, together with other books and objects of interest presented by individual donors, has forced upon the council the question of a permanent place of deposit for its books and antiquities in general,—the question, in short, of the beginning of a Museum and Library. In concluding their report, the council nominated the Rev. W. Bazeley, honorary general secretary, to act in conjunction with the present general secretary of the society.

The report was unanimously adopted, on the motion of the Mayor of Cheltenham, seconded by the Baron de Ferrières; and on the motion of Col. Basevi, the officers and council were elected.

Mr. Gambier Parry, president of the society for the current year, then read his inaugural address, in the course of which he said,—The town in which you have chosen to meet offers you but little for your purpose beyond its pleasantness, convenience, and hospitality. In the very centre of the vale which gave the Saxon origin to the Romans' title of Dobuni to those who inhabited it, this town possesses nothing to remind you of either of them. The old Chelt is but a pigmy rivulet to give the modern name to so important a place. Probably many inhabitants have never heard of it, and most know not when they cross it. Antiquaries might have expected, from the strong salt of those famous wells which have been the origin of its fame and popularity, that its name might rather have been Cheltenwych than Cheltenham; but in those old days when Droitwich obtained that significant name, India, not yet being an English possession, had not disordered that number of constitutions which required the drastic purgation of Cheltenham salts. Health and population have followed in the train, and the happy sequence of a healthy mind in a healthy body has found its best development, in this place, of some of the most valuable educational establishments in England. If cities were left to the wisdom and the mercies of archæological societies to build, they might possibly fall under the censure of being more quaint than convenient; but one thing we should do in our reverence for the beauty and durability of those ancient days, we should build our cities with at least some desire to secure the reverence of futurity. Ages hence, when England will have long since become a peaceful country of flocks and herds and simple life—freed from the slaveries of vulgar wealth and social pride: no longer torn and wearied by the mania of competition, or disturbed by the agonies of commerce and politics—the learned and quiet-hearted antiquary of those days, wandering over the country, in the midst of which we sit here to-day, will come upon a vast area of heaps and mounds: the natural and sole relics of a great town that was built of brick and plaster. He will meditate on the truth of the old Saxon origin of its name from "Clay," into which its ignoble materials have again melted in shapeless heaps. Like Marius weeping over the ruins of Carthage, he will sit on a huge green hillock (the only existing record of what was once that famous hostelry, the Queen's Hotel), and, sighing cut the name of Cheltenham, his eyes will wander over the silent scenery. On the west, a great mound which represents what once was Lansdown; on the east, another, where rose in ancient times the courts and towers of the famous College; before him are the long ridges which mark the sites of the Old Well-walk, the High-street, and the Promenade—the dykes and embankments of the ancient railroad, long since consigned to rust and ignominy by easier atmospheric modes of transit; and, as far as his eyes can reach, stretch out the woody slopes and grass-grown mounds where stood the ancient Pittville. "Sic transit gloria!" Its venerable inhabitants had long since wandered to Colorado and Manitoba, and had left their home to the pasturage of flocks, to silence, and to time. And as he meditates on the rise and fall of that great city,—its fretted life and surging crowds, of mingled wealth and poverty,—he will give it the tribute of a tear; for, poor and valueless as its body was, its soul was good,—for the immortal honour of its history was in its noble foundations for learning and religion, and in the lives of its scholars who have adorned the annals of their country. But to turn from the ideal archæology of the future to our own, we are here in the midst of a country of great historical interest and importance. The learned and indefatigable Leland, whom Henry VIII. honoured with the title of his Majesty's "Antiquarian," in spite of the difficulties of travelling in his time, and consequently also of forming a broad topographical view, quickly declared that Gloucestershire was properly not one county, but three,—the hills, the vales, and the forest. The Romans had taken the right and simpler view, and regarding the line of the Severn as the natural and strategic division of the country, all south-east of it was included in Britannia prima, and all north-west in Britannia secunda, for the facility of civil and military government. The fact that the capital of the one was London, and of the other Caerleon, accounts for the early importance of Gloucester, first as the strong frontier town, and afterwards as the great arsenal between the two, chosen for the combined advantages of its fertile valley, its accessibility by water, and the natural strength of its military position. The hills above the city soon became their favourite resort, and they built their villas in the secluded combs, or on the breezy brows and ridges, as their taste might be. Those hills, like the scenery round their own Italian mountain homes, were in those days covered with an evergreen growth of wild boxtree and juniper, fern and yew. But many other things, besides domestic pleasures and military advantage, made this county a favourite resort. Their four great roads met near Corinium, but a short hour's ride from the brows of those hills leading by the great Fossway to the extreme North of Britain, by the Ickneild way towards London, and the nearest way to the great military depôts of Verulam and Colchester in the east. The Irmin-street led to Gloucester and Caerleon, and the Acman-street southwards to Bath. The Roman's telephone was the trumpet, and his telegraph the beacon. The trumpet-signals were scarcely within hearing from the legions encamped at Gloucester, even when the wind blew sharp from the N.W.; but the Beacon-hill of Painswick was the telegraph station for the whole valley, and far beyond it. Among other things of utmost value to the Roman inhabitants were the iron ore of the Forest and the salt of Droitwich, within easy reach right and left as they looked down from the camp and villas on the hills. The variety of building material for which this county is famous contributed still further to the advantages of their life. It supplied not only all they needed for the construction, but also for the rich ornamentation of their houses. The deep red of one forest-stone, the grey of another, the orange of the ochre-pits, the white of Painswick, the blue of the lias and the yellow of the common oolite, and all the added colours of time for his fresco-painting; and clay, burnt black, red, or brown, made such a choice of materials for architect, painter, and mosaicist, as few if any other neighbourhoods in Roman Britain could equal. Those scenes and subjects of long-past time are still open to the archæologist; for the pages of antiquity will bear many turnings, and its ashes will bear burning again for fresh metal like the old cinder-heaps of Roman iron diggings in the Forest of Dean. . . . . But I must draw in this panorama and come nearer home. The greatest works of men have been done in troublous times. Even the arts of peace have flourished most when the world has been alert with intrigue and war. It may have been in the intervals of troubled times that those peaceful arts have been known and greeted by men wearied with the passion of destruction. It may have been in quiet nooks and refuges of the world that the poet and the artist have laboured; but had the atmosphere of their age been asleep with lassitude and indifference, their powers, too, would have lain dormant. They, the very lovers of peace and contemplation, would have dozed inactive, uninspired, but for the stir of events and the energy of men. Though for a while the waves seemed lulled and the air seemed clear, it was that force of moving life, which, like electricity, pervaded the very air they breathed, which gave the motive, the dramatic action and incident, the very vital spark itself to the fire of their unconscious genius. Thus was it that when all was astir with violence, uncertainty, and change, those immortal works of art and poetry were produced which shine like stars in the stormy sky, and like angels of consolation among the sighs and sorrows of the Middle Ages. The annals of this county are not adorned with the name of any early poet; but its works of early art, which are chiefly those of architecture and of those arts which cluster round it, are admirable. But we have the notice of one of the earliest recorded portrait-galleries, in the conversation between the Abbot of Gloucester and King Edward II., who, when on a visit to the Abbey, remarked with admiration the portraits of his predecessors which adorned the great hall. Whereupon the abbot adroitly asked the king for his; but Edward only replied that he hoped soon to see himself in a better place,—a strange hope somewhat awkwardly gratified. In relation to this, it is a remarkable circumstance that the best-preserved portrait of any King of England in the Middle Ages is that of this very King Edward II. It is his effigy carved in alabaster beneath the beautiful canopy of his monument in Gloucester Cathedral. The Puritan mania which wrecked all else that was beautiful and valuable within reach in that great church spared this. . . . . The village of Kempley is situated on the extreme north-west boundary of this county, and lies much out of the way of ordinary traffic. The old church has nothing about its exterior especially to attract the occasional traveller, but its interior is most remarkable. A few years ago the clergyman of the parish, after long-continued labour with his own hands, and little else than a common knife, laid bare one of the most, if not the most, complete work of art of its kind and date in England. The chancel is entered from the nave by a good Norman arch, elaborately painted with ornamental patterns of its own period. The chancel is entirely covered with figure-subjects painted in tempera. The barrel roof, which is of masonry, has in the centre a large figure of Christ in majesty, surrounded by sacred figures and symbols, the chief of which are the Blessed Virgin, St. Peter, and the seven golden candlesticks. The eastern wall, above and on each side of the window, has figures and other ornamentation upon it. The patterns on the jambs of the small windows of the chancel walls are very good. But the most effective feature of the work is on each side wall, on which are painted the figures of the Twelve Apostles seated under canopies. The whole work is contemporaneous, and of the same style as the architecture, which may be dated at about 1120. It was in admirable preservation, and the tempera having a dead surface, the whole was plainly visible. With a view to its preservation it was, soon after I first saw it, covered with varnish; but nothing could be more lamentable than the result. One of the greatest values of tempera or fresco for painting on walls, among cross lights, is that on account of their mat surface they are equally well seen from all directions. What is wanted for their preservation is something that will bind the thin film of painting to the wall without destroying its deadness of surface. I venture to mention this with so much detail because such works are rare, and are exciting an increasing interest. The

result of varnish is to destroy all quietude of effect, and the glare is made worse by the broken and undulating surface of the old wall. Some varnishes, too, are astringent, and would detach rather than secure the tender film of tempera. There is another spot which I specially recommend to your notice. It is at the extreme opposite border of the county from Kempley. I speak of the parish and church of Buckland. From its retired position, it might escape observation. When I visited it, about twenty years ago, grand old elms swept across the road, and fine timber in the fields made a lovely foreground to the hills which swept down from the high-up parish of Campden. The cottages were all in their old-fashioned condition; the moss-grown mill, and quiet old Gothic parsonage with grisaille glass still in some of its mullioned windows; the stream left to wander across the road, and passed by stepping-stones; the old manor-house of many gables, humbled in its age to the condition of a farm; the unkempt churchyard, of which a sacred reverence for its quietude was the best apology for its neglect; and, finally, the old church itself, with walls well worn by age and storms, and tinted with the mellow lichen and fresh moss, made a perfect picture of lovely and tranquil picturesqueness. It was a scene of perfect peace, simplicity, and contentment, to touch the heart of the true antiquary, where, remote from the fretfulness of busy life, he could wander undisturbed, and linger in the full flow of his quiet and contemplative humour. The whole atmosphere of the place beamed with all that charm which antiquity could add to beauty. I believe that the church is still untouched. In the interior the remains of old seats and tiles,—the unusual feature of testers projecting over the seats against the walls,—were rare specimens of their kind. There were frescoes on the walls, but they have been defaced and lime-washed. The old embroidered cope which had served its purpose in former days was then doing duty as an altar-cloth. The sancte-bell cot over the gable of the nave is a perfect model. But, alas! the scene is changed. Although the church retains its interest, the charm which surrounded it is no more. The old mill is modernised, the old timber is cut down, the stream wanders about no more,—the village is marred by ruthless incongruity. The breath of modernism is like the blast of a furnace; and the discomfited antiquary, in the full emotion of his affectionate regret, sighs out the old words (with an English parenthesis), "Eheu fugaces,"—"Lost to me, lost to me,"—"Labuntur anni!" We are here in Cheltenham surrounded by a country full of historic interest. Few parts of England have been the scene of such stirring events as that which lies within our sight. . . . It would be great omission if I were to close this address without at least a note of some valuable literary productions of late years which have adorned and enriched the annals of this county. One of these is the "History of Sudeley Castle," by Mrs. Dent,—a work of great industry and interest, full of historic incident, and completed without stint of costly type and beautiful illustrations. Another with which this county was honoured, by an author from another, was the "History of Fairford Church," by the Rev. James Gerald Joyce, vicar of Strathfieldsaye. His work is one of those mines of archæology which, like others of first class, is valuable, not merely for local interest, but for all that extensive study, width of heart, and open eyes, could collect to illustrate and embellish it. I must add my own humble testimony to that of the accomplished author, that the grand old windows of that church were mainly of English work. Although Van Dyck, unacquainted with what English art had been before his day (when it was all but *nil*), may have said, in off-hand conversation, that those windows were the work of Albert Dürer, and, although such a tradition may demand the respect of age, and the apology for it may be that they were the production of his early years, I am confident that they are no more the work of that great artist than of that other great one who attributed them to him. Glass-painting was not only a fashion, but a passion of the fifteenth century. The architecture of the day had converted buildings into lanterns, because the cheapness of glass had made it possible to indulge and instruct the eyes of the multitude with the finest productions of artists' work, at from 1s. 6d. to 2s. a superficial foot. There were many establishments of glass-painters in England at that time; Stowe, in his survey of London, mentions several. Others are well known elsewhere, and Mr. Joyce records the account of others, and even the contracts made by them for their works. The testimony borne by the art of those Fairford windows induces the belief that they were the production of one or other of those establishments. There are evidences, indeed, that Flemings were at least among the executants of those windows, but no hands from the school of Wolgemuth, such as those of the young Albert Dürer were, ever drew those quiet draperies. The glass was principally foreign, — but the hands which designed and used it were English in the main, and Flemish under English influence. . . . . The study of what our fellow men have done in times gone by opens to us a field of study and contemplation equalled by none other. If the studies of the historian and the antiquary seem dry, the fault is in the mind that makes them so. Most true it is that both heart and intellect are fed upon the stores of that continuous stream of life which has flowed on from age to age, and has left along its banks the scattered pearls of human experience. The whole value of the past to us is in the use we make of it. Geology has a counterpart in the world of intelligence and life. Deeper and deeper as the shaft is driven, richer and more inexhaustible are the treasures of research. We are beings of high powers and great destiny; and the subjects of our study and the objects of our pursuit are precious or valueless, just as they minister well or ill to the purpose of our being. Our life is equally private and public. All that is known is on the surface of our life; all that is unknown lies beneath. But, known or unknown, they are and can be ever no more than lifeless facts and prosy chronicles till touched by the fire of human thought and sympathies. Facts accumulated into mountains are useless to us till we can assimilate them. Treasure is of no profit till it can pass into currency. You need to breathe and live on the fresh free air which blows over the wide field of life and things gone by, not only to fill your minds with knowledge, and store you with treasures of resource, but rather to freshen your motive and brace your heart for good work upon the world, the times, the men around you. It would be a melancholy system of dry morality and cold philosophy that merely filled the mind with matter, and ignored the heart and soul of humanity. The value of archæology, whether for the instruction of our youth or the pursuit of our maturer years, lies not in the pedantic knowledge of antiquity, but in the thought-felt and heart-felt realisation of its life.

On the motion of Sir Brook Kay, seconded by Sir John Maclean, a vote of thanks was given to Mr. Gambier Parry for his able address.

A visit was then paid to the parish church of Cheltenham, and to Leckhampton. Mr. Middleton acted as guide to the parish church, drawing attention to various peculiarities and points of interest in the building. The extraordinary thickness of the old Norman wall at the west end was pointed to as strong evidence that originally a Norman aisle existed on that side of the church. He also pointed to one of the old marks of consecration made by the bishop in consecrating the church, which it was formerly the custom for bishops to make.

Mr. Gambier Parry, having been appealed to in regard to the east window, said he wished to mention an interesting fact. He had said in his inaugural address that that county was famous for its buildings, and no doubt it was from the enormous resource which the local building stone gave that there was at Gloucester a school of masons. Professor Willis, at the meeting of the Archæological Institute, showed by references to deeds and to the architecture of the cathedral that there was no doubt the Perpendicular style originated in Gloucester. He, however, wished to add that the great peculiarity was that it began in the middle of the period which terminated in that entirely different style, the Decorated, the real fact being that the window before them was precisely the type of that style which was invented at Gloucester, and which turned the Decorated into the Perpendicular. They would perceive all the elements and feeling of the Perpendicular style in the upper part, but not a single Perpendicular line ran through.

At Leckhampton Church the visitors were received by Canon Trye, the rector, who explained many points of interest connected with the church. The tomb of Sir John and Lady Gifford, with their recumbent effigies, near the chancel, was examined with interest. The date of its execution was estimated by Sir W. Guise as between 1520 and 1550. The party next proceeded to Leckhampton Court, first noticing in the churchyard an effigy of a vestmented priest, which had been found in the course of some excavations near. In the garden behind Leckhampton Court Canon Trye drew attention to a picturesque doorway, bearing the date 1582, which is supposed to be the date of the building of the Court.

The annual dinner of the society took place afterwards at the Plough Hotel, Mr. Gambier Parry, the president, in the chair.

An evening meeting was held in the Ladies' College at eight o'clock, the President in the chair, when the first paper read was by Mr. H. S. Gael, on "Bishop Hooper's Visitation, 1551-2." The next paper was by Mr. C. J. H. Middleton, on the Church of the Blessed Virgin Mary, Cheltenham. After noticing the manor of Cheltenham as very early a royal possession, so described in the Doomsday Book, and the existence of a Saxon priory here, he proceeded,—That there was a church here in very early times is shown by the mention in Doomsday Book of priests who were supported by an endowment of land. The Reinbald mentioned was dean of the Collegiate Church of Cirencester. Henry I. gave a mill and some land worth 24*l.* a year to the endowment, and in 1133 he presented the rectory to the Abbey of Cirencester. It was then further enriched by large gifts of land from various nobles. Besides two richly-endowed chantries in the church itself, it had chapelries at Arle, Hatherley, and Charlton Kings, the latter of which still exists, and is now the parish church. Like the mother church at Cheltenham, it is dedicated to the Blessed Virgin Mary, and was not only originally similar in plan, but it had gone through the same changes in the addition of wide aisles which project north and south as far as the ends of the transepts. In 1415 the rectory came into the possession of the Nunnery of Sion, near Isleworth, and continued to be so till it was seized by Henry VIII. From that time until within the last few years the incumbent has only been a curate, and for most of the time not even a perpetual curate. After the Reformation the tithes were let on lease and farmed by various persons. The following extract is from a letter from J. Stubbes, in 1663, on the state and maintenance of the cure of Cheltenham and Charlton Kings: "Rectoria de Cheltenham cu capella de Charlton R'g' eidem annexat com.' Glouc'r." 40th Eliz. (1597) 27th Feb., the premises were granted to Francis Bacon, esq. (afterwards Lord Bacon) for 40*l.* under the rent of 75*l.* 13*s.* 4*d.*, under these exceptions and covenants, except the advowson of the church and chapel. "The lessee to find two fit and discreet chaplains and two deacons to celebrate divine service, and also to find bread and wine for the sacrament, and ropes and bells." After the death of Lord Bacon the impropriation came into the hands of Sir Baptist Hicks, who delegated the presentation to Jesus College, Oxford, under the restriction that they should always nominate a Fellow of Jesus College, an M.A., of two years' standing, who was to hold no other benefice, and to be and remain unmarried. There was a succession of more than twenty of these Welch bachelor curates. The stipend was 40*l.* a year. The church now existing was built at various periods, and owing to the windows having been inserted at a variety of dates, it is impossible in every part to decide what is the precise date of the plain masonry in the walls. The oldest existing part of the church is the lower part of the tower and part of the west nave wall, with its broad buttresses and billet-mould string. This belongs to the period of transition from Norman to Early English, about A.D. 1150. The points distinctly Norman are the cushion caps in the western tower arch and the abaci of the north and south arches. These abaci are merely strings, as the arches do not spring from beyond the line of the impost, a very common peculiarity of early work, probably a survival of classical precedent. The points that mark the transition to Early English are the pointed shape of the arches, the moulding of the east and west arches, and the carving on the caps. The work is somewhat rude both in design and execution, as we see especially in the east or sanctuary arch, where the abacus is square in plan and quite unmoulded, and the mouldings of the arch do not seem to fit upon it. The south cap of this arch

is rather richly carved with heads and foliage,—one representing a queen and martyr. The head is crowned, and she holds a palm branch in her hand. The tower is groined with a simple quadripartite vault, the ribs plainly chamfered. There are carved heads at the top of the wall ribs. The only other place besides the tower where any of this transitional work remains is to be seen outside the west end of the nave, where the original broad flat buttresses with the billet-mould string have survived all the later alterations. It is interesting to note that this string is exactly the same in detail as that round the upper part of the western turrets at Bishop's Cleeve Church. The whole tower and spire appear to have been built in three stages, with some interval between each. The first, including the four tower arches inside, about 1150. The second stage, up to the main offset, about 1200; and the third, including the spire, not long before the year 1300. The spire, which is a very graceful one, is octagonal, with plain brooches and rolls at the angles. The height of the whole is 167 ft. A good many feet of the top of the spire have been repeatedly rebuilt, and unfortunately the original lines were not carried out at the last rebuilding. There is a small priests' door in its usual place in the south chancel wall.

A paper by Mr. N. S. Ellis, "On a few biographical Notices of some Gloucestershire Tenants named in Doomsday Book," was next read by Sir John Maclean.

On Wednesday, the 9th, a party of over 100 of the members of the society and their friends left the Plough Hotel in carriages and breaks shortly after ten o'clock, amidst a downpour of rain. Arrived at Southam House the visitors were received by the Misses Sergison, the present tenants of this ancient residence of the De la Bere family. Those ladies accompanied the visitors in their inspection of the mansion, pointing out many objects of special interest in the quaint old panelled rooms, which are filled with paintings and numberless objects of antiquarian interest, including portraits of Edward VI., Sir Jno. Overbury, Lord Ellenborough, and others. Mounting the gallery of the dining-hall, Mr. Gael read a short account of Southam House, which he said had been often considered the most ancient domestic residence in the county, but it was a slight mistake. It was built in 1501.

The party next visited the neighbouring chapel of Southam, which, built about the year 1140, was used as a place of worship at the Reformation, and then degenerated into a barn. In 1861 its original sacred character was discovered, and it was repaired and restored by Edward Earl of Ellenborough.

Cleeve Church was next visited. Mr. John Middleton described the structure with considerable minuteness. He observed that the archdeacon had no right of visitation at Cleeve, but only the bishop. The door of the church was a beautiful Norman specimen, though two of the pillars had been taken away, and most likely, being marble, they were sold on account of the value of the material. The Norman pinnacles of the church were most unusual. The tower was quite modern, and probably had been rebuilt from the foundation. The porch was interesting on account of the old Norman groining. The interior presented a curious aspect, and it would seem from the arrangement that it consisted of two parts, one to the westward of the rood-screen, a parish church, and the other to the eastward of the screen, a collegiate church.

Through rural lanes the party drove on by Gotherington to Sudeley Castle, where they were cordially received by Mr. and Mrs. Dent, and entertained at luncheon, and where Mr. Wilfrid Cripps gave an interesting sketch of the history of Sudeley Castle. The party then strolled about the extensive grounds and gardens, and passed in small parties through the various rooms and passages of the castle, filled with art-treasures and historical mementoes of great interest. The chapel adjoining the castle was next inspected. It was in the centre of this building that Katherine Parr was interred. The building was a ruin when the Sudeley estate came into the possession of Mr. Dent, and he had it, with the castle, completely restored.

Returning from Sudeley, Winchcombe Church was visited, the restored edifice having its main features pointed out and described. The party then set out for Cheltenham, where in the evening there was a *conversazione* at the Ladies' College. Mr. Thompson gave some details of the Poyntz family. He said the restoration of Iron Acton Church, which was now going on, had revived an interest in the eminent family of Poyntz, whose monuments were in that church. The family held the manor of Iron Acton from the reign of Edward III. to the reign of Charles II. Sir Robert Poyntz built the celebrated preaching-cross at Iron Acton and the church, but Mr. Thompson did not consider, looking at the question archæologically, he could have built the tower of the church. Professor Rolleston read a paper, illustrated by drawings, on the earliest inhabitants of that part of the country, and Mr. Witts read a paper on Roman camps.

The final meeting was held at the Corn Exchange, on Thursday morning, and shortly afterwards a large party started for the Roman villa at Witcombe, thence to the British village and camp at Birdlip, where lunch was provided, and then back to Cheltenham by Elkstone, where Mr. Knight read a paper on the Church. The Rev. W. W. Liddell officiated as guide at Cowley, and the Rev. C. Wilson at Cubberley, and so this most successful meeting was brought to a close.

OBITUARY.

Mr. J. W. Gough.—The *Calcutta Englishman* announces the death, at Darbhanga, of Mr. J. W. Gough, architect. He died of cholera, and was seized with the illness in his office on Friday, the 23rd of May, and died the same afternoon. The journal we have mentioned says,—"The rajah has lost in Mr. Gough a valuable servant, and the cause of architecture in India has itself suffered a considerable loss. All his work was characterised by boldness in design, accuracy in detail, and care in construction. So thoroughly alive was the rajah to Mr. Gough's exceptional worth, that, we are told, he had just concluded an arrangement on the most liberal terms with him to stay on in his service after the estate passes out of Government management."

Mr. F. R. Lee.—Mr. F. R. Lee, R.A., died recently at Vleesch Farm, Cape Colony, aged eighty-one. He began as an amateur, and continued his study when he was serving as a young officer in the 56th Regiment, and, on leaving the army on account of weak health, he entered as a student at the Academy in 1818. Born at Barnstaple, his pictures were for many years taken from the rich pastoral and river scenery of Devon, in several of which the cattle were painted by his friend Sidney Cooper, who survives him, and in one, "The Cover Side," painted in 1839, just after he was made a full Academician, the dog's figure and game were painted by Sir Edwin Landseer. This, with three other works, is in the National Gallery, the bequest of Mr. Vernon and Mr. Jacob Bell. He retired as an honorary Academician in 1871.

LORD BEACONSFIELD AT THE WESTMINSTER INDUSTRIAL EXHIBITION.

ON Saturday last the Prime Minister distributed the prizes to the successful exhibitors at the Westminster Industrial Exhibition. The prizes were three gold medals, sixty-three silver medals, and 150 bronze medals. It may be mentioned that upwards of 80,000 people have visited the Exhibition since it was opened a few weeks ago.

Lord Beaconsfield, in the course of his address, said:—"Unquestionably guilds and systems of apprenticeship are not adapted to the manners of this age; but, in allowing them to become obsolete or in terminating them, society and the State have made a great mistake in not affording at the same time a substitute for them. At the present moment there is a very general,—a very prevalent,—feeling in this country that some effort should be made by which technical education should be secured, and I have seen with great pleasure that the great City Companies have felt that they could not more wisely or more beneficially exercise a portion, a part of their considerable wealth than in cultivating that technical skill and securing that technical education which, in fact, is prominently connected with their origin and duty; but it is a great mistake to suppose, if there are any who indulge in the idea, that principles which are applicable to the fine arts are not,—though they may not be in the same degree,—applicable to arts of utility. The same appositeness is necessary, the same fitness and finish; and what is most important, both in the fine arts and in arts of design, is that the best material should be used. I feel, therefore, that if an institution like the present,—I will treat it as an institution,—is to be sustained and nourished, the attention of the working classes must be called to technical education; the greatest inducement must be given them to complete that education, and to understand that in the best material and in the best workmanship they alone can maintain that superiority which was once, and I hope will be again, the pride of this country. But, at the same time, I do not wish it to be supposed that I look on that excellence to be merely mechanical. Whether they be arts of utility or arts of design, it is impossible to attain excellence unless there is feeling; and however skilful may be the manipulation, without feeling you will not accomplish your purpose. There may be taste and even genius in the fancy of a button or the construction of a buckle. Let me, before I present these medals to my friends,—let us take, before I sit down,—a general view of our situation. We have this year 2,000 exhibitors; we have a remarkable demonstration of feeling for the fine arts in articles as numerous being sent to this Exhibition as there are of those mechanical productions which might have been supposed, as a matter of course, would have taken entirely the lead under that head. Let me remind you once more with regard to these works of art, that though you must court criticism you must not be daunted by it. There are works,—there is more than one work,—exhibited in places in this Exhibition which indicate a very fine feeling, and even a predisposition for the fine arts. Let me remind you of this, that one of the greatest of English artists, one whose fame after many years, ranks still high, was once as one of yourselves. It was when Sir Francis Chantrey was carving a common piece of furniture that attention to him was drawn by his work by a connoisseur of great fortune and great taste and skill. He opened to him a great career. He became Sir Francis Chantrey, made a great fortune and a great fame. He is now well remembered, but there are many of you who, when you pass through many a gallery, stop before his works and admire them, without knowing, perhaps, that Chantrey was one of yourselves."

ART-UNION OF LONDON PRIZES.

THE following are the remaining works selected by the principal prizeholders. From the

Royal Academy.—The Waterhen's Haunt, Alfred De Bréanski, 120*l.*; Loading Sand in Langston Harbour, C. W. Wyllie, 100*l.*; Under Repair, F. A. Winkfield, 45*l.*; Touches of Sweet Harmony, W. Anstey Dolland, 42*l.*; In the Pine Woods of Goguddan, Charles Earle, 40*l.*; On the Banks of the Tiber, Charles Earle, 40*l.*; Feeding Geese, A. M. Rossi, 40*l.*; At Shere, J. M. Barber, 30*l.*; A Hedge-row, Early Spring, R. W. Fraser, 30*l.*; Good enough to Toss, S. W. Lee, 30*l.*; A Day Dream, Georgine F. Terrell, 30*l.*; "I'm so Happy," M. Ellen Staples, 21*l.*; Summer-time, Linnie Watt, 20*l.*

Society of British Artists.—Eagle's Crag in Borrowdale, James Peel, 200*l.*; A Summer Afternoon,—on a Sunny River, W. W. Caffyn, 60*l.*; "On her Way from Prayer," L. C. Henley, 50*l.*; Sunny Hours in Sunny Places, W. H. Bartlett, 45*l.*; On the River Lowther, Westmoreland, W. H. W. Foster, 45*l.*; Scene on the Ouse, Isfield, Sussex, C. Gibbs, 45*l.*; A Farm at Pirbright, Surrey, L. Rivers, 45*l.*; My Birthday Gift, J. C. Waite, 40*l.*; A Summons to Surrender, C. Cattermole, 35*l.*; Tintern Abbey, Monmouth, C. Pearson and T. F. Wainwright, 30*l.*; The Keeper's Boy, Edward Holmes, 29*l.*; Dover Castle, Mrs. Dawbarn, 25*l.*; The Undercliff, near Bonchurch, J. Godet, 25*l.*; Loading up, H. S. Melville, 25*l.*; Fast Castle, Berwickshire, H. Panton, 25*l.*; The Path by the River, A. Verey, 25*l.*; On the Wiley, Wilts, Wm. Pitt, 21*l.*; Valley of the Teste, J. Carlisle, 20*l.*; An Old Bridge on the Wey, Jas. E. Grace, 20*l.*; Buckhaven, Fife Coast, George Gray, 20*l.*; Watendlath Fells, Cumberland, Chas. Low, 20*l.*

Crystal Palace Picture Gallery.—In the Oldest Street at Antwerp, H. Schaeffels, 75*l.*; Valley of Champé, W. Portman, 60*l.*; View of Holstein, F. Abel, 50*l.*; The White Cliffs of England, T. S. Croxford, 45*l.*; A Forest Glade, Inverary, F. Greenlees, 45*l.*; Looking out, Haynes King, 45*l.*; In North Devon,—Lundy Island in the distance, J. G. Naish, 45*l.*; Evening in a Wood, A. Hencke, 40*l.*; Sentinels of the Coupée, Sark, F. T. Lott, 40*l.*; An English Lane, D. Payne, 35*l.*; Lake of Killarney, H. Lewis, 30*l.*; The Morvern Hills, Ballachulish, A. Francis, 30*l.*; Near the Hartz Mountains, W. Nabert, 30*l.*; The Devil's Bridge in the Tyrol, O. Von Kameke, 30*l.*; A Quiet little Dell, E. Holmes, 25*l.*; Castletown, Isle of Man, J. T. Croxford, 20*l.*; at Capel Curig, G. Wells, 20*l.*

Society of Painters in Water-colours.—Study of a Lobster Boat, Collingwood Smith, 30*l.*; The Ande Kirk, Delft, Holland, G. H. Andrews, 20*l.*

Institute of Painters in Water Colours.—Near Killerton, Devon, J. H. Mole, 35*l.*; Near South Brent, Devon, J. H. Mole, 35*l.*

General Exhibition of Water-Colours.—Evening Light, Strathyre, J. J. Bannatyne, 40*l.*

Exhibition in the Royal Albert Hall.—The Sentinels o the Glen, C. Potten, 60*l.*; The Gamblers, after Meissonier (plaque), L. Hall, 40*l.*; On the Llugwy, near Capel Curig, J. Godet, 26*l.* 5*s.*

AWARD FOR SANITARY INVENTION.

THE Duke of Northumberland presided on the 10th inst. at the anniversary meeting of the Sanitary Institute of Great Britain, which was held in the theatre of the Royal Institution, Albemarle-street. The annual address was delivered by Mr. G. J. Symonds, F.R.S., on "Water Economy." During the meeting the prize medal and certificates awarded for certain inventions shown at the Stafford Exhibition were presented. The Richardsonian gold medal was awarded to the Silicate Paint Company for "Griffiths's patent white,"—a non-poisonous substitute for white lead,—the chairman remarking, as he handed the special medal to Mr. Thomas Griffiths, F.C.S., that his was the most beneficial discovery ever made for preventing the dreadful suffering caused by the use of lead paints. Mr. Symons, in the first part of his address, explained the circumstances which combined to render the small areas in the kingdom on which upwards of 75 in. of rain fall annually of great national importance. Almost all these districts of heavy rain were districts of hard rocks, of steep slopes, and of sparse population. The first of these conditions insured the permanency of the physical geography of the district,—the rocks being too hard to be washed away,—and, therefore, the permanency of the rainfall; the second lessened evaporation, and sent the water rapidly into the streams or lakes; and the third tended to insure the purity of the effluent water. Mr. E. Chadwick, C.B., in moving a vote of thanks to Mr. Symons for his address, said the future of agriculture would depend largely upon a proper regulation of the supply of water in a way to prevent the evils arising from an excess or deficiency. For the health of the people, also, it was most desirable that a department should be established to superintend drainage and water supply. Mr. George Palmer, M.P., who seconded the motion, thought it might be desirable that a board, represented in Parliament, should be created to have charge of all matters relating to the collection and distribution of water.

At the dinner of the Institute which followed the meeting, Dr. Corfield, in proposing "The Health of the Successful Exhibitors," coupled with it the name of Mr. Thomas Griffiths. Dr. Corfield said that those whose health he had the honour to propose knew that their inventions were thoroughly appreciated, not only by the Sanitary Institute, but also by the public generally, whose welfare would be improved by the introduction of many of the appliances to which medals had been awarded. With regard to Mr. Griffiths, who had obtained the special medal for an exhibit of pre-eminent merit, he was quite sure that the paint produced was one which was calculated to prevent the many evil results now caused by the use of lead in the manufacture of paints.

Mr. Thomas Griffiths, in reply, said that he thanked the Institute most heartily for the distinguished honour which had been conferred upon his firm, and upon himself by the presentation of the Richardsonian medal, but that, gratifying as it was to receive such a special token of merit, that award was as nothing in comparison to the satisfaction he felt at having been instrumental in saving the lives and preserving the health of so many of his fellow creatures. He was glad to say that his endeavours to produce a complete substitute for the pernicious white and red leads used so universally in houses and ships, had been appreciated, not only by the English, but also by foreign Governments, whose demands for his patent paint had shown that they were quite alive to the advantages of sanitary reforms, more especially when such could be combined with economy. The new zinc, or, as it was now generally known in the market, "Griffiths' Patent White," would do even more work than the poisonous carbonate of lead, and could be produced at quite as cheap a rate per ton. At the same time, it had a covering power or "body" of more than double that of carbonate of lead, or oxide of zinc, and, therefore, consumers, even supposing they had no sympathy with the cause of sanitary progress, would not be sacrificing economy by the use of his paint. The Silicate Paint Company was now doing all in its power to supplant lead pigments by the energetic introduction of non-poisonous paints, and to show that it was in earnest in the work, he would mention that it had already spent upwards of 25,000*l.* in the erection of new paint works on the banks of the Thames. These works were producing 100 tons per week of purely sanitary paints, which he hoped would do much to diminish the suffering daily caused by the use of pigments containing salts of lead, arsenic, or other poisonous ingredients.

FREE EXHIBITION OF PICTURES IN SOUTH LONDON.

MR. W. ROSSITER, honorary secretary of the Working Men's College, writes,—"It is proposed to open a free exhibition of pictures, drawings, photographs, &c., during the vacation of the Working Men's College, in August and September, when the spacious rooms will be otherwise unused, if owners of such works of art will lend them for this purpose in sufficient number. Every care will be taken of them, and they will be fully insured against loss by fire. South London is quite destitute of any museum or art-gallery, and it is believed that the inhabitants of the poor and crowded neighbourhood of Lambeth would value such a collection as it is desired to make. Will you kindly allow me to ask in your columns for help in carrying out the proposed exhibition?

143, *Upper Kennington-lane.*"

PARLIAMENTARY JOTTINGS.

The Horticultural Gardens.—In the House of Commons on the 10th inst., Mr. R. Yorke asked the Chancellor of the Exchequer whether it was true that her Majesty's Commissioners for the Exhibition of 1851 had commenced a suit in Chancery against the Royal Horticultural Society, with the view of recovering possession of the gardens at South Kensington now in the occupation of that society; whether it was the fact that this proceeding, if carried into effect, would extinguish the liability of her Majesty's Commissioners to pay the holders of the Horticultural Society's debentures 10*s.* in the pound in 1892, provided her Majesty's Commissioners should at that date decline to renew the society's lease; and whether, if the facts be as stated, her Majesty's Commissioners proposed to make any compensation to the debenture-holders for the security now held by them which it was thus proposed to extinguish?—The Chancellor of the Exchequer, in reply, stated that the Commissioners for the Exhibition of 1851 had commenced a suit in Chancery against the Royal Horticultural Society with the view of recovering possession of the gardens at South Kensington now in the occupation of that society. The Commissioners never had been, and never could be, under any liability to pay over to the holders of the society's debentures 10*s.* in the pound in 1892, because that was contingent upon the society performing the covenants of the agreement, which had not been the case. The debenture-holders had no lien upon the property comprised in the trust-deed, and the Commissioners, as trustees of the public, did not propose to make them any compensation.

River Conservancy Bill.—In the House of Commons, on the 14th inst., Mr. Sclater-Booth, president of the Local Government Board, said he was sorry to state that the Government thought that they would not be able to proceed with the Bill this session.

Artisans' and Labourers' Dwellings Act, 1875.—In answer to Mr. Fawcett, Sir J. McGarel Hogg, chairman of the Metropolitan Board of Works, said:—It is impossible to say what will be the entire cost to the metropolitan ratepayers of carrying out the Artisans' and Labourers' Dwellings Act, as there are many cases before the Board in respect of which schemes have not yet been prepared nor estimates made. Up to the present time, of fourteen schemes approved by Parliament, the loss on the six sites referred to will be 562,051*l.*, while that on the remaining eight is estimated at 514,409*l.*, assuming that the prices received for land equal, and do not exceed, those already offered. The whole matter is under consideration by a committee of the Board, who propose to make a representation to the Secretary of State, with a view to an amendment of the Act.

The Indian Museum.—Mr. Grant Duff asked the Under-Secretary of State for India whether it was true that it was intended to break up and disperse the museum which was collected by the East India Company and was transferred from the Company to the Crown when the change of Government occurred? In reply, Mr. E. Stanhope said:—It has been decided by the Secretary of State in Council to remove the collections now in the East India Museum at South Kensington. The distribution of these collections has not yet been determined on, and is the subject of investigation by a committee in communication with the authorities at the British Museum, South Kensington, and Kew Gardens. The main object which is expected to be gained by this step is the increased utility of the collections to the public. The Economic Section, for instance, could be maintained and perfected with great public advantage in the experienced hands of Sir Joseph Hooker at Kew, where he already has a far better collection of similar objects; while as regards the Zoological, Ethnological, and Art collections, their transfer to departments where they will be more generally seen and appreciated seems better than to retain them in a museum which, somehow or other, does not attract visitors. I may add that it will have the additional advantage of causing an ultimate saving to the Indian revenues of 9,000*l.* a year.

The Board of Works in Ireland.—Colonel Colthurst asked the Secretary of the Treasury whether it was the intention of the Government to carry into effect the recommendations (which had now been before them for twelve months) of Lord Crichton's Committee of Inquiry into the Board of Works in Ireland, as regards the salaries of the staff; and whether there was any reason for delaying further the decision on that part of the report which dealt with the special cases of hardship in the office establishment directed to be inquired into by Colonel Stanley's letter of the 7th of January, 1878. In reply, Sir H. Selwin-Ibbetson said the Treasury had hoped to be able to deal with the cases referred to before now, but on considering the main questions dealt with by the Committee, it appeared that they involved a consideration of certain of the duties of the Local Government Board, and of the relation of that Department to the Board of Works. It is thought that a better distribution of duties may be made between the two than that which now exists, but it has not been possible during the session to give sufficient time to the subject to arrange details of the scheme, and it is intended to postpone further action till the autumn. Meanwhile, with such a scheme in contemplation, it is not a favourable moment for readjusting the salaries of an establishment which may be seriously affected by it.

THE VENTILATION OF DWELLING-HOUSES AND FARM BUILDINGS.

AT a meeting of the Boroughbridge Agricultural Society on the 5th inst., Mr. Leadman read a paper on this subject. In the course of it he said:—In stables, besides the impurities caused by the horses' respiration, there are the ammoniacal vapours arising from the bedding and the floor of the stall, while cow-houses are, perhaps, the most neglected of all. There is frequently no attempt at ventilation; they are often very dirty with collections of manure and bedding standing by the week together; cobble floors, and the interstices soaked with liquid filth, giving out ammonia and other gases. There is another way in which farm buildings have their air vitiated. Generally speaking, they are ranged round that focus of filth called the fold-yard. The fermenting masses of manure and other decomposing material evolve foul gases, impregnating the air which enters the buildings whose doors communicate with the fold-yard. Reform and reconstruction of this part of the farmstead is sadly needed. Fortunately they are mostly in districts thinly inhabited, and where the foul gases are speedily diluted, or they would inflict terrible mischief. After drawing attention to the consequence of inhaling air rendered impure, he asked what could be done by way of remedy. Supposing the house is an old one, much can be effected without pulling it down, and often at little cost. Provision must be made for the entrance of pure air, free from all danger from any effluvia, and for the exit of foul air, without producing draughts. To achieve this there are innumerable ventilators, some of marvellous construction, each with its own special advantage, but I prefer the simplest contrivances, leaving the complex ones to those who care to bother with them, simply mentioning that revolving fans, sunlights, &c., are only suitable for large buildings. In bedrooms, 1,200 cubic feet of space

should be allowed for each person, if possible, while the same plans of ventilation will apply, and their use will make rooms available for sleeping purposes whose cubic space is limited. Stables and cowhouses require a threefold ventilation, ground ventilation, so as to always keep a dry floor (the free use of perforated bricks about 3 in. above the level of the floor will effect this), introduction of air beneath the animal's nose to dilute, as soon as possible, the impurities of respiration (which may be done by inserting a perforated brick under the manger), and a good outlet tube for the egress of foul air. Where no chambers or lofts are above, louvred openings may be made along the ridges of the roof. Cobble floors being objectionable, bricks laid in and grouted with gas-tar and quicklime should be substituted. The floor should slope slightly so as to hold no wet. Drains opening into stables should be avoided; top gutters are much better. The floors of both stables and cowhouses should be swilled twice every week, manure should never be allowed to remain, and the bedding, if the weather will allow, should be dried in the open air every day, unless a fresh bed is given each night. It has been estimated that by improved ventilation in every house in the kingdom the mortality from consumption could be reduced by at least two-thirds. Surely, is not this a grand field for hygienic work?

THE PROPOSED WIDENING OF LONDON BRIDGE.

THE House of Lords' Select Committee on this Bill decided unanimously on Friday that it was inexpedient that the measure should be further proceeded with. The committee consisted of Lord Carnarvon (chairman), the Lord Privy Seal, the Duke of Richmond and Gordon, the Earl Somers, the Earl of Morley, Viscount Cardwell, Lord De Lisle and Dudley, and Lord Winmarleigh. A large number of witnesses was called both for and against, those for the promoters of the Bill (the Corporation of London) including Mr. Cockerell (coal merchant), Mr. Church (manager of the General Omnibus Company), Mr. Horace Jones (the City Architect), Mr. C. H. Gregory, Sir Edward Watkin, Alderman Sir James Clarke Lawrence, Mr. W. H. Barlow, F.R.S., Mr. E. M. Barry, Mr. Charles Barry, Mr. J. P. Knight, &c. Evidence was given in opposition to the measure by Colonel Fraser (Commissioner of City Police), Sir Henry Peek, Mr. Poynter, R.A., Mr. Norman Shaw, R.A., Mr. Newton (of the British Museum), Mr. Watts, R.A., Mr. Millais, R.A., Mr. Street, R.A., Sir Coutts Lindsay, Mr. Armstead, Mr. Burton (director of the National Gallery), Mr. Vulliamy, Mr. Rennie (grandson of the architect of the bridge), Mr. Fergusson, Mr. Penrose, Mr. Scott Russell, Sir Frederick Leighton (president of the Royal Academy), &c. The inquiry was private, only counsel, witnesses, and those officially concerned in the case being admitted,—surely an unusual course?

THE CENTRAL FRUIT AND VEGETABLE MARKET.

AT the last meeting of the Court of Common Council, the markets committee presented their report, submitting for the approval of the court plans for the new fruit and vegetable market, at an estimated cost of 115,000*l*. Several speakers opposed the adoption of the report, predicting that the new market would be a failure; and Mr. J. S. Scott characterised the design proposed for adoption as a "mean, contemptible thing" that would be unworthy of the merest tyro that ever entered an architect's office. In the end, however, the motion for the adoption of the report was carried, and it was referred back to the committee for execution.

The plans have been prepared by the City Architect, Mr. Horace Jones, and the site adjoins the Central Meat and Poultry Markets at Smithfield. The market will have a frontage on four streets or roads,—viz., Charterhouse-street, Western-roadway, New Southern-roadway, and Farringdon-road. The main floor of the market will be as nearly as possible level with the other markets, so that the entire range will be readily approachable the one from the other. There will be three principal entrances, on the east, north, and south. The plans show an area of nearly 44,000 ft. devoted to wholesale market purposes, surrounded by forty-one shops, fronting the several streets, which can be used for retail and other purposes, and these occupy an area of some 16,800 ft. The general or market area is approached not only by the three main or vehicular entrances, but by two entrances for foot-passengers. The market will consist of a series of shops, thirty-three in number, having in front pitching-stands for goods and wagon-stands, the whole being approached by a roadway having a width of 18 ft. always clear for vehicular traffic. In the middle of the market area is a further arrangement of pitching-stands, with an area of about 4,400 ft., including gangways. In roofing the market the floor will be kept as clear and open as possible, the detached main roof supports or columns being thirty-seven in number, and the clear span of the roofs is 45 ft. The roofs will be of a light iron construction, with a range of glass louvres at the plate and ridge levels, affording an ample amount of light and air, so requisite for a market of this character. The height of this roof will be 28 ft. to the level of the plate, and 45 ft. to the ridge of the louvres. There will be a roadway approach to the basement, which will be suitable for market and railway purposes. The general appearance of the building externally will be as similar in character to the other markets as the less expensive nature of the works will allow. The cost of the superstructure is estimated at 115,000*l*., but the land and approaches will cost in addition 175,937*l*., according to the estimate.

THE VALUE OF LARCH AS A WOOD FOR USE.

UNDER the title, "On the Best Timber for Paving and Building Purposes" (Hardwicke & Bogue), Mr. J. Wheeler has brought together various statements showing the value of larch. "It is remarkable," he says, "that though this timber seems to have fallen into disuse, or been forgotten for many years, it was known to and much prized by the Romans, for we find Pliny speaking of its 'incorruptible nature' and in allusion to its difficulty of combustion, comparing it to a stone rather than wood. The belief entertained by the ancients that larch could not be set on fire arose probably from the fact that it burns without flame, and so sluggishly, that unless constantly watched it will soon become extinguished. This property of non-combustion, united with so much strength and durability, should recommend this timber above all others for the interior work of houses. Readers of Cæsar's Commentaries will find larch there alluded to as the *igni impenetrabile lignum*, as well as the *Larix robusta*.

The famous plantation of larch on the estate of the Duke of Athol is well known. It is related that the original plants were brought over, with some orange-trees and other exotics, from Italy; but having pined and died under hot-house treatment, they were throw out over a waste slope, where a few seeds surviving found congenial soil, and sprang up with great rapidity. This attracted the attention of the duke, who immediately had a large area planted with larch, and lived to bear testimony to its superiority, even at twenty years old, over other woods of a much greater age.

Although larch can be traced in England for a couple of hundred years, it is not till within the last fifty or sixty that its exceptional properties are beginning to be recognised. We say beginning advisedly, for there is a reserve of qualities inherent in home-grown larch as yet not fully known, which make its timber superior to that of any other tree in cases where durability, strength, and resistance under exposed conditions are required.

The great durability of larch has attracted the notice of many eminent botanists. In the 'Dendrologie' of Professor Koch, of the Berlin University, we find it dwelt upon, as also its power of resistance to moisture, and the toughness of its fibre, which nevertheless does not diminish its value as a material for furniture, as the wood takes so fine a polish as to be equal in appearance to the best satin wood.

The exceptional merit which this wood possesses of being equally sound whether exposed to the air, or buried beneath the ground is well known among Continental nations; the French use it for water-pipes, the Swiss for vine-props, having found that above or below ground its strength remains unimpaired, while renewed crops of vines flourish and fade. Indeed, we learn on the authority of Malesherbes so highly is it prized in the Swiss cantons that 'a piece of larch wood costs double the price of a piece of oak of the same dimensions.'"

Mr. Wheeler at the commencement of his pamphlet cites "an early article of the *Builder* on the subject," to which he affords no reference, to prove that no thought was given to the quality of the wood that should be used for street paving. If he had looked farther he would have seen the expression of our regret, more than once, that wood had been often used for paving quite unfitted for the purpose.

THEATRE BUILDING.

THE Alexandra Theatre, Liverpool, the foundation stone of which was laid by Mdlle. Titiens in 1866, has just closed for an entire alteration and reconstruction of the interior. Mr. C. J. Phipps, F.S.A., of London, is the architect engaged, Messrs. Jones & Sons, Liverpool, do the builders' work, and Messrs. Jackson & Sons, of London, the ornamental plaster-work. The alterations will occupy about three months.

The plans for the alterations to the Haymarket are now being prepared for Mr. Bancroft by the same architect.

LIGHT CASES.

COLES *v.* FRANKLIN.

THIS was an application to the Master of the Rolls for an injunction to restrain the defendants from erecting a large block of buildings on a vacant piece of land in front of his house, in Cross-street, Saffron-hill, by which a row of windows in his house would be blocked up. There had been a hoarding round the ground for twenty-five years, in which a man kept his carts. It was alleged that if the block of buildings were erected as proposed, the ancient lights of the plaintiff would be entirely destroyed, and especially those of his kitchen, which was an important part of his house, as he kept a coffee-house.

The plan, as submitted, showed that the new block would be 70 ft. high, but it was now stated that it would be only 40 ft., which would bring the chimney-tops to the level of the top windows in the house of the plaintiff. The lowest window in the plaintiff's house was 8 ft. above the ground, and, as the land slanted, there was an excellent light.

The defendant contended that as he had got a building lease from the City, he had a perfect right to build, as the Act by which the improvements were carried out was a private one.

The Master of the Rolls said that he would make the usual order, that the buildings be not raised above a certain point, and that would have the effect of preserving ancient lights. No Act of Parliament obtained by the City of London could close up ancient lights. If the defendant in the meantime could find out that he was right, he could come back and ask the order to be discharged on cause shown.

Order accordingly.

DOIG *v.* GAME.

This was an application (before Vice-Chancellor Sir Charles Hall) for the continuance of an interim injunction to restrain the defendant from adding another story to his new building, now in course of erection in Nicholas-lane, City, beyond what it was originally.

The plaintiff contended that his light and air would suffer were the building to be erected, as the lane was so narrow, and his property adjoined it in Cannon-street. The defendant was now prepared to refrain from putting the additional floor on the house opposite that of the plaintiff, but would carry it up on the adjoining new buildings. The defendant desired to put a coping on the top of the walls of the house in question to preserve them from getting destroyed by the rain. The plaintiff had only seventeen months of his lease to run, and as the defendant had purchased all the adjoining property, this house would then be obtained by the defendant, and the floor carried up.

The Vice-Chancellor said he would continue the injunction for a week as against the house in question, so that the defendant would be able to cover over the walls, and then his Lordship would determine the course he would follow.

COMPENSATION CASE.

EAST AND OWEN *v.* METROPOLITAN AND ST. JOHN'S WOOD RAILWAY.

THIS case was concluded at the Middlesex Sheriffs' Court, Red Lion-square, on the 12th inst., before Mr. Mellor, Q.C., as Assessor, and a special jury. The principal point in the case was a claim in respect to damage which might arise when the railway passed through the land in question, and Sir H. James (for the company) took an objection, on cited cases, that such a claim could not be entertained. After a discussion a verdict by consent for 600*l*. was recorded for the land, the legal question to be subsequently decided.

BUILDING ACT PROVISIONS: PARGETING FLUES.

JENNINGS *v.* DUNCAN.

SIR,—The report of this case may, I think, induce builders to resist pargetting the outsides of flues, although the Act of Parliament (with all due deference to the Chief Justice) says it shall be done. For many years past it has been my custom to have the outer surfaces of all flues pargetted from the undersides of joists to the top lines of skirtings, and from the undersides of topmost ceilings to the level of the slates whilst the walls are being carried up, the cost being insignificant, and the saving of future trouble and expense important.

That smoke frequently finds its way out behind the skirting-board is the experience of all owners of house-property; tenants become alarmed, have fear of the premises being on fire; the skirting-board has to be taken down, paper, paint, and decoration damaged, and rendering or pargetting, after all, has to be done. Why not, therefore, do it in the first instance, and avoid vexatious expense?—taking care that it is kept intact, and not destroyed by the carpenter fixing his short joists or turning-pieces, the joiner driving in his plugs, or the bellhanger mutilating it. I ask compliance with this rule, and say that, on grounds of economy, builders will find their account in its observance; but if I am met with opposition, I will enforce the third paragraph of Rule 17, section 20, and will have no woodwork of any description nearer to a flue than 2 in., unless the outer surface is rendered or pargetted, and will apply this rule to joists, rafters, slating battens, floor-boards, laths, skirtings, and stair-strings, so important, in my belief, is the external surface-rendering to the protection of the fabric against fire.

T. E. KNIGHTLEY.

SIR,—To show how consonant with common sense is the recent decision, it is only necessary to consider the injustice and inequality that the usual interpretation gives.

1. The great object of the Act is to ensure protection from fire, and yet the Act would be made to say that, although it considered it unnecessary to parge the outer face of one side of a wall, it is necessary to parge the other side.

2. That the building owner, by putting flues in a party-wall, compels the adjoining owner either to plaster the wall, or a part thereof, on his side, or to have the disfigurement of the parging following the line of the flue.

3. That, although the risk of fire is at least equal, he is released from the necessity, and need not plaster or disfigure his side of the wall.

The conclusion, therefore, I think, must be, that the framers of the Act had no such intention; but, of course, although they had not, they may have improperly worded the clause (of course the wording might be more distinct), but I think it can fairly be read as meaning only the insides of a flue.

Take a plan of a wall having a flue thereon, and would not most persons avoid the use of the word "front" of a flue because it might mean the outside? You would then speak of the sides being the right and left, and the side next the room: all these are then included in the word "sides," but the fourth side is really the back of the flue; and it will be seen why the framers made it special; because, unless specially mentioned, it might have been considered the charge for the work might have been avoided by the adjoining owner.

I may mention the decision given is in accord with what had long been the common practice as to warehouses, and this will surprise some of your readers.

BANISTER FLETCHER.

*** We cannot claim to understand the whole of the above, but as Mr. Fletcher is a district surveyor, we think it right to let him express his opinion. The fact remains the same. The Act says the outside of a flue, as well as the inside, is, with certain exceptions, to be rendered or pargetted, and unless that can be railed off the bond, it is of no use talking of any hardships it may entail. The duty of judges, magistrates, and district surveyors is to administer the Act.

DRAINAGE AT CROSBY.

A SPECIAL meeting of the Great Crosby Local Board was held on the 9th inst. (Mr. Sharman in the chair) to consider a report prepared by Mr. T. Mellard Reade, the engineer to the Board, with reference to reconstructing the mouth of the outlet sewer of the district, and the best way of dealing with the subject generally.

The report set forth that, in consequence of the inroads of the sea, the original line of iron pipes on the foreshore had become completely detached from the line of the sewer, and Mr. Reade made various recommendations with regard to it. The estimated cost of the first portion of the work was 1,334*l.*, and if it was decided to reconstruct the additional part, the extra cost would be 440*l.*, in all 1,774*l.* A motion that the engineer be requested to obtain estimates for the reconstruction of the stone outlet as per plan, and that the Little Crosby Board be informed of the condition of the outlet, and the cost of reconstructing it, and be requested to contribute towards the expense; that the Great Crosby drainage be turned into the new outlet by the use of earthenware pipes, from the point indicated in the plan; and that estimates be obtained for the same, was carried by the casting vote of the chairman.

COST OF WOOD-PAVING BLOCKS.

THE following is a list of tenders delivered for supply of 700,000 best Swedish yellow deal-wood paving blocks, 9 in. by 6 in. and 3 in., for paving the roadways of Sloane-street and Sloane-square, for the Vestry of the Parish of Chelsea. Mr. Stayton, surveyor to the Vestry:—

Beadle, Brothers	£7	7	0	per 1,000
Calder, Brothers	6	15	0	,,
Improved Wood Paving Co.	6	7	6	,,
Knight	6	7	6	,,
Lloyd & Co.	6	2	0	,,
Waterman & Co.	5	18	10	,,
Asphalte Wood Paving Co.*	5	16	0	,,

* Accepted.

MASTERS AND MEN.

Wigan.—The strike of operative plumbers at Wigan, which began on May 1 last, is at an end: the men resuming work at 7½d. per hour, a week to consist of fifty-four and a half hours.

The London Engineering Trade.—On Monday afternoon a meeting of about 1,000 engineers was held in the Winchester Music-hall, Southwark-bridge-road, Mr. Fletcher in the chair, to consider a proposition that the men on strike should go in to work at their old rate of wages. The meeting was convened by circular to give the non-society men especially an opportunity of stating whether or not they would go in. Mr. Alfred E. Tucker said that now that the Society could not give the men their full income it was for the men to say whether they would continue the struggle or not. They should now only be able to get a reduced amount of pay; but still, if the men on strike now succumbed, the whole of the trade in London would suffer by a reduction of wages. Mr. Gooch moved, and Mr. Harrison seconded, the following resolution:—"That the men now engaged in this struggle do proceed to make the best terms they can with the employers." Mr. Hume proposed, and Mr. Dickson seconded, the following amendment:—"That the men now engaged in this struggle do persist in their resistance to a reduction in their former rate of wages." The amendment was carried with about twenty dissentients, and then, put as a substantive motion, it was passed amid cheers. The meeting is stated to have been about equally composed of men on strike and those not on strike.

STREET ACCIDENTS.

THE great increase of accidents, resulting from reckless and careless driving, appear to me to be of so alarming a character as to require prompt legislative remedies, and I suggest a *Street Accident Act*, 1879.

1. All drivers of railway vans, cabs, carts, and other vehicles, should have certificates of competency, and should be of the full age of twenty-five years. At present lads and striplings of seventeen, eighteen, nineteen, and twenty are to be seen driving heavy railway-vans.

2. That a limit of speed of seven miles per hour, on public highways, reduced in turning corners at right angles to three and a half miles per hour, should be the maximum rate of speed allowed.

3. That drivers, of carts, carriages, and other vehicles have no exclusive claim to the road, but share this privilege in common with foot-passengers.

4. That a public prosecutor give notice to all cab proprietors and railway companies that proceedings will follow whenever the above rules are infringed.

I am assured by a general accident company that the risks of railway travelling bear no kind of comparison with the risks and dangers of the streets.

VIATOR.

Potters' Machinery at Hanley.—An interesting exhibition of machinery for potters' use has taken place at Hanley, under the auspices of Mr. William Boulton, of Burslem.

Books.

Popular Dictionary of Architecture and the Allied Arts. With numerous Illustrations from all Styles of Architecture. By W. J. AUDSLEY and G. A. AUDSLEY. Liverpool: Published by the Authors.

IF this work is really to be carried through on the scale indicated in the first volume, it is no doubt a spirited undertaking for a private publication. But it appears to us to be too voluminous for a popular work. We have here a large volume of nearly 300 pages, which only gets us down to "aqueduct," and seems to include so many heterogeneous subjects that we can hardly distinguish any principle of selection. When we get, within a few pages, "animated" (used as if it were a technical term in art), "antæ," "ante," and "anti" (the Latin and Greek prepositions), "ante-cabinet," "anthropomorphism," "antiquo-modern," "antimony yellow," &c. &c., it is difficult to understand why the authors stopped at any word at all, and why they did not at once advertise it as a universal dictionary. NOR is it very clear for whom it is intended. It is called a "popular dictionary," but is further stated on the title-page to be "a work of reference for the architect, builder, sculptor, decorative artist, and general student." Readers of this class hardly require an explanation of "angle-column" and "angle-buttress," which really are not technical terms requiring separate treatment from "column" and "buttress," but literary compounds the meaning of which is self-evident. In some places the authors seem to have invented words on purpose for their dictionary; at all events, we never heard of "Alhambresque" as a term signifying the style of ornamentation introduced in the Alhambra, and regard such a derivation of nomenclature of a style from a single building, however important, as entirely untenable. We might as well have "Parthenonesque,—the style of sculpture introduced by Phidias in the Parthenon." The heading preceding this, "Alexandrium opus," is a phrase that does not properly exist, and would be bad Latin if it did: the correct phrase is "opus Alexandrinum." The article on "apse" is a very good one, very well illustrated with typical examples of the various forms of apsidal termination on plan. When, at the commencement of the article "Anglo-Saxon," Mr. Parker is quoted to the effect that "it is not decided whether any specimens of the architecture of the Anglo Saxons still remain," as a reason why the student should leave the subject to antiquaries as a barren study, we can only say that if Mr. Parker really said so, it is so much the worse for his reputation as an archæologist, and it would be interesting to know to what race of builders he does assign Barnack and Earl's Barton, as they could not have grown of themselves, and it will hardly be contended that they could be Norman. The article "Antæ" is not up to date, and does not give the real philosophy of the feature, which in the purest Greek buildings, such as the Parthenon, is really the end of the wall treated in a way to give it a certain expression, for which reason the Greek anta does not diminish upwards at all; while in the Parthenon the fronts of the antæ actually lean outwards, the upper part overhanging the base, in order to correct the optical effect of diminution which the opposite diminishing line of the column would have produced. This fact, so important in its illustration of the way in which the Greek architect regarded the anta, is not in Stuart & Revett, who are not authorities in regard to refinements of Greek architecture; it was one of Penrose's discoveries.

The Amateur Pottery and Glass Painter; with Directions for Gilding, Chasing, Burnishing, Bronzing, and Ground-laying. By E. CAMPBELL HANCOCK. Illustrated. London: Chapman & Hall. Worcester: Hancock & Son.

THIS little book is reprinted "by special permission of the Department of Science and Art, South Kensington." It contains full and very clearly-expressed directions for overcoming the principal technical difficulties of painting on porcelain and on glass, the latter including the various processes which go to make what is generally called stained glass, *i.e.*, the use of pot-metal put together mosaic-wise, as well as of enamel-painting and other processes of dealing with the surface of the glass, the combination of these with the mosaic method being recommended, perhaps rightly, as the best for

the amateur. We should have wished, however, to have seen in a book published with the imprimatur of "the Department," some general advice to the student as to what to paint and what not to paint in the methods here treated of. A good deal of what is done by amateurs (not to say professional artists) of this class on porcelain is what had much better not be done at all, because it never can be done well. Our advice to people wishing for instruction as to painting landscapes on porcelain would simply be "Don't attempt it." Nature can never be represented in these stubborn materials, which require so much humouring, and will never give the blendings and gradations necessary for even an approach to the atmospheric effect of nature. But in the present treatise not only is this ignored, and no warning of the kind offered to the reader, but he is, on the contrary, encouraged by the bad example of a horrid chromo-lithographed landscape intended to represent the effect that may be produced on porcelain, pervaded by unwholesome sickly colours, such as one is thankful to feel do not exist anywhere in nature. The student would be much better employed in any humbler practical handicraft than in libelling scenery in this way. What can be done with good effect on porcelain are conventional ornamental designs based on flowers and fruits, or perhaps even the realistic representation of these, though here again our Fantins and Angells would probably protest, that nothing but the most delicate and pliant materials can hope to represent the delicacy of nature. However, a nearer approach to nature in these details can be made upon porcelain than to nature as a whole. The most suitable of all, for the best effect, are comparatively flat and somewhat conventionalised designs, introducing the figure with a decorative setting. But let porcelain and glass painters leave landscape alone.

The Strength of Materials. By WILLIAM KENT, M.E. New York: Van Nostrand. London: Trübner & Co.

Voussoir Arches applied to Stone Bridges, Tunnels, Domels, and Groined Arches. By W. CAIN, C.E. (Same publishers.)

THESE two small works are "reprinted from Van Nostrand's Magazine," published in New York. Mr. Kent's treatise is on a subject which he tells us he has made his hobby for some years back; and though he is obviously and admittedly indebted to testers on this side of the Atlantic for a good many of the facts on which his conclusions are based, he seems to have come to some conclusions on the basis of his own practice, different from those which are generally received here, or at all events, supplementing them in some points which are worth consideration. He is specially interested in the relation of the shape and size of the specimen of material tested to the results, and suggests that the influence of these conditions has not always been sufficiently taken into account in judging of the strength of materials by test. He gives, for instance, diagrams of two shapes of iron for testing tensile strain, in one of which the test is concentrated, by the mode of holding the specimen in the clips, upon the centre portion of its length; in the other, a considerable length is left between the points of clipping for the strain to act upon; these he calls respectively short and long specimens. All his experience leads him to the opinion that the short pieces, which represent the kind of form most commonly employed in tension tests, give a higher result than the long form, whereas the latter represents more correctly the circumstances under which such tension usually operates in materials in use. The main point against the "short" specimens the author considers to be that in testing no accurate measurement can be made of their extension before rupture, as a means of comparison of ductility. Another idea in regard to testing, which will be new, at all events to some of those concerned in such operations, is in regard to the influence of time, that is, of the rate at which the increase of testing power is applied, upon resistance. On this head we may quote one of the author's examples:—

"Two pieces of ordinary merchant iron, 1 in. square, taken from the same bar, were tested by bending stress. They were placed on supports 22 in. apart, and the pressure applied by a screw and registered by a platform scale. One was tested as rapidly as possible, the pressure and deflection being read and recorded at every 20 lb. or 40 lb., about one hour being occupied by the whole test. A deflection of 5½ in. was caused by a load of 2,350 lb. The other was tested very slowly, and was 'rested' frequently under strain, for intervals of from twelve to forty-eight hours, the whole test requiring more than three weeks' time. A load of 2,640 lb. caused a deflection of less than 3 in."

This is certainly a striking difference in result, and suggests a new source of incorrectness to be guarded against in testing. It is curious that a second example given, one of testing for tensile strength, seems to indicate that in this class of test the trial is more severe with the more slowly applied power. Many other tensile tests on ductile metals gave invariably similar results, those where the tests were quickly applied invariably sustaining a much heavier pull before breakage. There are many more facts and experiments of interest and importance given in this small and compact little book, well worth the attention of testers of materials.

Mr. Cain's treatise is a discussion of the theory affecting the stability and strength of stone or brick arches, the aim being "to make an advance in the theory, by considering the effect of the compressibility of the material in a theoretical manner." It is not easy to select any point for special reference; we can recommend the treatise to the notice of engineers and constructors generally as containing a great deal of thoughtful examination of the subject.

Miscellanea.

The Prince Imperial.—One of the latest and most characteristic acts of benevolence in the young Prince was evinced in his sending 10*l.* towards the fund being raised on behalf of the widow of the late Thomas Wright, F.S.A., left penniless and blind. It was sent in the most cordial and graceful manner, with an apology for the smallness of the donation. In Mr. Wright the Prince recognised the translator of his father's "Life of Julius Cæsar." This was admirably done; and it is said that such were the powers of Mr. Wright, that he gave daily to the printer two sheets, or thirty-two pages (?). Not one of our most eminent literary writers has greater claims on the gratitude of the nation; yet Mrs. Wright has not been allowed a penny by the Government, although strong and persuasive reasons have been submitted to the Premier, by some of our best men, the colleagues of Thomas Wright. He was allowed a pension (granted, we think, by Mr. Gladstone), and it was expected it would have been continued to the afflicted widow.—*Chatham Observer.*

Alost Hotel de Ville.—In Alost, Belgium, the beautiful tower of the Hôtel de Ville, which was erected in the twelfth century, has just been destroyed by fire. On Sunday week, on the occasion of a city festival, it was arranged that there should be an illumination, and the tower was to be lighted up with Bengal fire. The city authorities further permitted an extensive piece of fireworks to be fixed on the tower and let off there. After this fatal piece of pyrotechnic art had been discharged, the tower itself was discovered to be in flames. The fire brigade was at once on the spot and succeeded to all appearances in extinguishing the conflagration before much damage was done. At two o'clock in the morning, however, after the crowds had gone home, the fire broke out again and made such rapid progress that, before any effective assistance could be rendered, it had gained entire mastery of the structure, and was not quenched before it had left it a complete ruin.

A New Thoroughfare.—The new street from Worship-street to Sun-street, rendered necessary by the closing of the latter thoroughfare by the Great Eastern Railway Company, and which has been constructed by the Metropolitan Board of Works at the joint expense of the Board and the Vestry of Shoreditch, was opened last week by representatives of the Shoreditch Vestry (no member of the Metropolitan Board being present). The street is 40 ft. wide throughout. The cost is said to be about 130,000*l.*, which it is hoped will be recouped to some extent by the sale of building sites.

Monumental.—A brass tablet to the memory of General the Right Honourable Sir Thos. M. Biddulph, K.C.B., has just been placed in Holy Trinity Church, Windsor, subscribed for by the officers of the 1st Life Guards, in which regiment the late General served for twenty-six years. It is mounted on black Belgian marble, and measures 6 ft. 10 in. by 3 ft. 4 in. The work has been executed by Messrs. Matthews & Sons, of 377, Oxford-street, London.

A Brave Young Englishman.—The South Australian papers mention an incident which may be usefully noted here. On an afternoon in May last, Dr. Parker, of Port Lincoln, was about to start upon a fishing excursion with Mr. Chas. Inderwick, who had recently arrived in the colony. Through carelessness or oversight, Dr. Parker found himself launched alone in his boat with but one oar. This he used for some time, but perceiving that Mr. Inderwick was ready to join him, he endeavoured to turn the boat, which by this time had drifted out into the tideway. His efforts were unsuccessful. The boat headed out into the gulf in spite of his exertions, and his friends became alarmed. The trooper of the place immediately procured assistance, and proceeded to obtain a boat. But it soon became apparent that the tide would bear Dr. Parker beyond the reach of this assistance; and it was at this critical moment that Mr. Inderwick bravely went to the rescue. Seizing his friend's second oar, he plunged into the water, and struck out for the boat. When Mr. Inderwick reached the tideway a full half mile separated him from the object of his exertions. Intense excitement prevailed among the onlookers. For a time the swimmer had a tough battle with the tide, and he showed such signs of exhaustion that the worst was feared. Mr. Inderwick, however, proved equal to the strain, and at the point at which he reached the boat, the tide, according to seafaring men, was running so strongly that a very few seconds would have sufficed to render rescue impossible. The doctor and his gallant young rescuer received very hearty congratulations upon reaching the shore, from the crowd which had by that time assembled. Many of our readers will feel additionally interested when we mention that Mr. Inderwick is the son of the eminent and much-esteemed Q.C. of that name.

Destruction of Bricks.—An outrage which is suspected to have a "trade" origin has been perpetrated at Brightside on a plot of enclosed land belonging to the Sheffield Gas Light Company on which bricks are manufactured by Mr. Joseph Scott, of Oughtibridge. An enormous number of bricks had been made, and about 20,000 were laid on the "flats" and under sheds to dry. On Saturday, when the men left work, everything appeared as usual, but on their going to the place on Monday it was found that the whole of the soft bricks had been trampled on and utterly spoiled. The perpetrators of the outrage had also collected all the planks and boards which lay about, taken the wooden covering from one of the kilns, also three wheelbarrows, and set them on fire. Then they seem to have gone to another kiln, which was charged with bricks in the course of being burnt. Here they set fire to the three wooden uprights on the outside, the effect being that when the kiln is emptied the arch will fall in. Neither Mr. Scott nor any of his workmen belonged to the Union, and it is believed that this is the secret of the mischief.—*Sheffield Telegraph.*

Stables, Rufford Abbey.—The stables at Rufford Abbey, Notts., have been undergoing restoration and refitting and re-arranging internally. The stables were erected by George, Earl of Shrewsbury, in the reign of Henry VIII. The building is quadrangular, and was originally entered by three archways, but the one to the north is now blocked up. The blended arms of Talbot and Savile are over each archway. The edifice has evidently been well cared for, but time had begun to work its ravages on the ponderous oak roof and tiles, and some of the walls were beginning to give way. The basement story has been retained, and the general design of the old building copied, saving that the cornice and roof are more ornamental. In the interior the ceilings of the stables and boxes are ornamented in the Tudor style. The ironwork is principally supplied by the St. Pancras Iron Company, and the fittings by the said Company and Musgraves, of Belfast. Mr. John Birch, of London, is the architect.

Plaster and Gilding.—Mr. F. Grimsley, of St. Giles's, Oxford, has prepared some good casts of fruit and foliage very suitable as drawing studies. Mr. Grimsley has sent us a cast of a piece of wild briony, gilded, and claims to have overcome any difficulty previously experienced in gilding plaster of Paris. It seems to bear washing, and the appearance of it is very good.

Burnham Beeches.—At the last meeting of the Court of Common Council, the City Lands Committee presented a report on the reference of the 26th ult. on the letter of Mr. Francis George Heath, and recommending the purchase, under the powers of the Open Spaces Act, 1878, of the open and waste lands known as Burnham Beeches and the manor of Allerd, with the timber thereon, the purchase-money to be paid out of the Grain Duty Fund. Mr. Hart, the chairman of the City Lands Committee, in moving the adoption of the report, said the court would recollect that, at their previous meeting, it was referred to his committee to consider the desirability of purchasing the site of Burnham Beeches for the purpose of preserving the land as an open space to the public. Altogether there were 529 acres, and the price at which they were offered to the Corporation was 12,000*l.*, in addition to which there would be the value of the timber on the land, estimated at another 6,000*l.*; 175 acres were enclosed land and freehold. There were some difficulties in the way of purchasing enclosed land by the Corporation, the first of which was, that the land could not be paid for out of the grain dues, and the Corporation finances were not in a condition to warrant them making such a purchase. Therefore the committee came to the conclusion that they could only deal with the remainder of the land. Immediately it became known that the Corporation were likely to purchase the property, efforts, he was sorry to say, were made, to make money out of the transaction, the result being that the committee could not purchase the open space without the freehold enclosures. In this difficulty Sir Henry Peek came forward, and consented at once to enter into a contract to purchase the whole of the property at 12,000*l.*, allowing the Corporation to have the whole of the open space at a most reasonable price. The Corporation would get the 374 acres for 6,000*l.* Sir Henry Peek would himself retain the remaining 175 acres. This would give the Corporation their land at a cost of about 16*l.* per acre, a sum much less than the cost of the land in Epping Forest. Sir Henry Peek himself would pay 35*l.* per acre for the land he retained. The only question which, under those circumstances, would remain open was the cost of the timber. This, on the open land, was estimated at 2,600*l.* Thus it would cost the Corporation from 8,000*l.* to 9,000*l.* in order to throw open to the public for ever this land. The report was adopted.

Temporary Buildings under the Metropolitan Building Act.—At the last meeting of the Metropolitan Board of Works, Mr. Fowler moved, and Mr. E. Dresser Rogers seconded:—

"That the Superintending Architect do prepare and present to the Board a return of all the buildings *now existing* in the metropolis with respect to which the provisions of the Building Act have not been complied with, but which have been sanctioned by the Board as temporary erections; the limit of time fixed in each case for such structures to be allowed to remain; and the number of those for which the time has expired but which still remain standing; that there be attached to the return a copy of all directions or circulars on the subject issued to the owners of such temporary structures, to the district surveyors, or to the Vestries and District Boards; and that the Superintending Architect do also report what method he has adopted for keeping a record of such structures, and for notifying to the parties the expiration of the time for which the structures were allowed by the Board."

After some discussion, the motion was put, and lost by 14 votes against 8. This decision is to be regretted.

The Royal Hospital for Incurables, Putney.—The Prince of Wales last week laid the foundation-stone of the new wing of the Royal Hospital for Incurables, West-hill, Putney. The new wing will afford accommodation for 100 beds, and in addition will comprise a spacious assembly-room, dining and day rooms for male and female patients, together with kitchen and other offices. The estimated cost of the extra accommodation is 20,000*l.* Messrs. Searle, Son, & Hayes, of London, are the architects.

New Public Hall, Sutton.—This hall was opened on July 10, by Sir Trevor Lawrence and Sir H. W. Peek, members for Mid-Surrey, and supplies a want which has been felt for the last twenty years. The building has been erected by a company incorporated in November, 1877, with a capital of 4,000*l.*, and has cost 3,500*l.* It is built in the domestic style of Queen Anne's time, and seats 700. Mr. Humphries is the builder, and Mr. Low, of Staines, the architect.

The Timber for the Royal Agricultural Show at Kilburn was supplied by Messrs. Nicks & Co., of Gloucester.

The Casson Continuous Feed Saw Bench. This saw-bench has an advantage of its own, and claims to be able to cut all kinds of deals and battens, no matter how much twisted or crooked they may be. This it is enabled to do owing to the principle embodied in its construction (a principle also embodied in most rope feed benches), of pressing the wood to be sawn against the fence at one point, and that as near the teeth of the saw as possible. Messrs. John McDowall & Sons, of Johnstone, who are the manufacturers of it, say that the average executive power of the saw thus secured is 75 per cent. over and above any bench having only an intermittent rope feed, speed of saw, feed, and driving-power in both benches being equal. No extra manual labour is required either physically or numerically, as the bench, when in motion, is purely self-acting, and can be worked by one sawyer and his assistant.

Packing Screws.—A correspondent writes: "I am glad to see you have mentioned the productions of the Manchester Steel Screw Company, but I think you might fairly have added to your account that all their screws are packed in neat cardboard boxes, which is an important feature just now, seeing there has been so much correspondence of late with reference to the American mode of packing hardware. I may mention that they have always packed their goods in that way."

Morrell's Closets.—The right designation for these closets, mentioned as at the Kilburn Show, is "Cinder-Sifting Ash Closets." They are quite distinct from *earth* closets. The dust from house-ashes is made use of in lieu of earth by an arrangement connected with and attached to the closet.

Surveyorship.—Mr. John T. Eayrs, borough engineer and surveyor, Newcastle-under-Lyme, has been appointed surveyor of West Bromwich, out of 142 applicants.

TENDERS

For building five houses and shops, at West Kensington, for Mr. Thomas Bryant. Mr. F. C. Kettle, architect. Quantities supplied:—

Nye	£9,698 0 0
Clemence	7,800 0 0
Smith	7,748 0 0
Dodds & Robb	7,317 0 0
Pickersgill	6,939 0 0
Green (accepted)	5,797 10 0

For rebuilding the Red Lion publichouse, in Cowcross-street, for Mr. F. Ede. Messrs. Isaacs & Florence, architects. Quantities by Mr. L. C. Riddett:—

Scrivener & Co.	£4,178 0 0
Kirk & Randall	4,143 0 0
Macey & Son	4,060 0 0
Conder	4,001 0 0
Browne & Robinson	3,910 0 0
Simpson & Son	3,800 0 0
Jarrett	3,790 0 0
Patman & Fotheringham	3,785 0 0
Hook & Oldrey (accepted)	3,580 0 0

For pulling down and rebuilding premises, 194, High-street, Peckham. Mr. Sextus Dyball, architect. Quantities supplied by Mr. W. E. Stoner:—

Kirk (accepted)	£3,275 0 0

For the restoration of St. Mary's Church, Higham Gobion, Ampthill, Bedfordshire. Messrs. Benton & Wood, architects. Quantities supplied by Mr. G. Sparrow Harrison:—

Ropkins	£1,418 0 0
Twelvetrees	1,326 0 0
Raves	1,044 5 0
Parmenter	1,033 0 0

For the restoration of St. James's Church, West Tilbury, Essex. Mr. W. Benton and Mr. G. S. Harrison, architects:—

Gumbrell	£1,143 0 0
Blake	1,062 0 0
Middleton	1,007 2 0
Middleton (revised, accepted)	905 0 0
For Oak Stalls, &c.	
Young	137 0 0
Howard	130 0 0

For a pair of villa residences, for the Epsom Estate Company, Limited. Mr. H. Smith, architect:—

Jeal, accepted.

For stabling, at West-hill, Epsom, exclusive of stable fittings, for Mr. G. Alder. Mr. H. Smith, architect:—

Pyke (accepted)	£465 0 0

For alterations and decorations to Ashley House, Epsom, for Mr. G. White. Mr. H. Smith, architect:—

Burdett & Sons	£1,124 0 0
Colls	874 0 0
High	870 0 0
Waller (accepted)	695 0 0

For new roads, sewers, and surface water drains, for Mr. Thomas Dence, at New Southgate, Middlesex:—

Keeble	£945 0 0
Bloomfield	833 0 0
Dunmore	817 0 0
Harris	815 0 0
Jackson	777 0 0
Pizzey	775 9 0
Richardson (accepted)	750 0 0

For infirmary and probation wards, at Norwood Industrial Schools, for the Guardians of the Lambeth Union. Messrs. Coe & Robinson, architects. Quantities by Mr. J. Scott:—

W. & E. Castle	£9,544 0 0
Stephenson	8,965 0 0
Nightingale	8,843 0 0
Shepherd	8,650 0 0
Jones & Co.	8,650 0 0
Tibbet & Adams	8,520 0 0
Chapple	8,379 0 0
Bowyer	8,309 0 0
Shapley (accepted)	8,135 0 0

For rebuilding the Bricklayers' Arms, North-street, Marylebone, for Messrs. Taylor, Walker, & Co. Mr. A. E. Hughes, architect:—

Johnston	£2,257 0 0

For rebuilding the Portland Arms, Great Portland-street, for Mr. C. Cockburn. Mr. A. E. Hughes, architect:—

Simpson & Son	£3,100 0 0
Perkins	3,100 0 0
Williams & Son	3,053 0 0

For alterations to, and redecorating, No. 23, Wimpole-street, for Mr. M. C. Rogers. Mr. A. E. Hughes, architect:—

Williams & Son	£1,415 0 0
Burningham & Co.	1,399 0 0
Perkins	1,365 0 0

For the erection of ten cottages, Romaney-road, Lower Norwood, for Mr. Blow. Mr. E. Carritt, architect:—

Syme & Duncan	£3,676 0 0
Hollidge & Stuart	3,395 0 0
Bowyer	3,150 0 0
Ward & Son	3,067 0 0
Coulter	2,285 0 0

For new roads, sewers, and surface-water drains, for the British Land Company, Limited, on their estate at Walthamstow Park, Essex. Mr. H. B. Michell, surveyor:—

Crockett	£3,879 0 0
Killingback	2,794 0 0
Acock	2,440 0 0
Peill	2,350 0 0
Keeble	2,300 0 0
Dunmore	2,203 0 0
Pizzey	2,100 0 0
Harris	2,000 0 0
Richardson	1,950 0 0
Wilson	1,899 0 0
Jackson	1,806 0 0
Bloomfield (accepted)	1,575 0 0

For new roads and sewers, for the British Land Company, Limited, on their estate, at Wandsworth-common. Mr. H. B. Michell, surveyor:—

Keeble	£2,537 0 0
Jackson	2,500 0 0
Pizzey	2,337 0 0
Killingback	2,324 0 0
Crockett	2,302 0 0
Harris	2,259 0 0
Blackmore	2,248 0 0
M'Kenzie & Co.	2,240 0 0
Thompson & Son	2,177 0 0
R. & G. Neal	2,131 0 0
Dunmore	2,035 0 0
Peill	1,950 0 0
Acock (accepted)	1,920 0 0

For the erection of the principal elevation and main wing of Jervis-street Hospital, Dublin. Mr. C. Geoghegan, architect. Quantities by Messrs. Dudgeon, Brothers:—

Roberts	£34,400 0 0
Hammond	32,200 0 0
Murphy	31,700 0 0
Toole	31,500 0 0
Cockburn & Son	31,000 0 0
Meade	29,300 0 0

For enlarging the water-course in the marshes at Ryde, and lining same with concrete. Mr. F. Newman, borough engineer. Quantities supplied:—

Jolliffe	£1,375 0 0
Saunders	1,197 0 0
Meader (accepted)	1,000 0 0
Bulstrode	965 16 5

For reseating Ashford Church, Mr. T. E. Williams, architect:—

Gaskin & Co.	£1,493 0 0
Colls & Sons	1,377 0 0
Adcock	1,187 0 0
Thompson (accepted)	819 0 0

For sea-wall, embankment, &c., at Ryde, for the extension of Esplanade and formation of pleasure-grounds, &c. Mr. F. Newman, engineer. Quantities supplied:—

Perry & Co.	£1,475 0 0
Jolliffe	19,450 0 0
Meader	18,400 0 0
Coker	16,171 10 0
Saunders	14,990 0 0
Smith	13,876 8 9
Hill & Co. (accepted)	12,975 0 0
Meats, Bros.	9,000 0 0

For house for Mr. H. Batley, Oak-hill-road, Putney. Mr. Wm. Young, architect. Quantities by Mr. C. Stanger:—

Pain	£1,486 0 0
Avis & Co.	1,454 0 0
Williams	1,208 0 0
Green & King	1,176 0 0

For alterations and additions to Lincoln Union Workhouse, Lincoln. Messrs. Watkins & Scorer, architects. Quantities supplied:—

	Quarters.	Alterations.
D. Taylor	£4,888	£7,657
Robinson	4,296	7,489
H. Taylor	4,470	7,250
Martin & Sims	4,488	7,000
Walter & Heasman	4,150	6,700
Baines	4,390	6,284
Warburton	3,760	6,680
Close & Co. (accepted)	3,944	6,379
Chadwick & Co.	5,700	4,100

For the erection of a detached house, in Holly Park, Crouch-hill, for Mr. W. Brander. Messrs. W. Waymouth & Son, architects. Quantities by Messrs. Burr & Till:—

Dove, Brothers	£3,275	0	0
Harper	2,899	0	0
Harris & Wardrop	2,897	0	0
Sheffield & Prebble	2,887	0	0
Williams & Son	2,874	0	0
Shurmur	2,844	0	0
Richardson, Brothers	2,788	0	0
Smith & Son (accepted)	2,669	0	0

For alterations at the Ship, Vauxhall Bridge-road, for Mr. Purchase. Mr. H. J. Newton, architect:—

King & Son	£830	0	0
Hatchman	815	0	0
Grimwood & Son	693	0	0
Anley	678	0	0
Taylor	657	0	0
Lamble	633	0	0
Wagner	590	0	0
Godden (accepted)	585	0	0

For warehouse, Upper Thames-street and Boss-court. Mr. W. Wimble, architect:—

Brass	£4,398	0	0
Hoare & Son	4,315	0	0
Ashby & Horner	4,185	0	0
Falkner	4,147	0	0
Scrivener	3,934	0	0
Croaker	3,889	0	0
Crabb	3,798	0	0
Morter	3,753	0	0

Accepted for the erection of four cottages, on the Canterbury-road, Folkestone, exclusive of bricks, slates, drain-pipes, and ironwork. Mr. Burgess J. Reeve, architect:—

Reason (carpenter and joiner)	£280	0	0
Philpots (excavator, bricklayer, &c.)	98	0	0
Garland (plasterer)	93	0	0
Mempes (plumber, glazier, &c.)	39	0	0

For alterations and repairs to Nursery Cottage, Folkestone, for Mr. D. Brockman. Mr. Burgess J. Reeve, architect:—

Dunks	£193	0	0
Potts & Son	164	11	0
Hoad (accepted)	145	0	0

For works, East Smithfield, for Messrs. Hoare & Co.:—

		Weeks.
Clarke & Bracey	£4,663	25
Clemence	4,500	16
Browne & Robinson	4,417	28
Trollope & Sons (accepted)	4 242	14
Outhwaite	4,178	25

For building two houses, in Mansford-street, Bethnal-green-road, for Mr. Whalley. Mr. W. Brown, architect. Quantities supplied:—

Cocks & Co.	£1,398	0	0
Joye	1,295	0	0
Howard	1,235	0	0
Goodman	970	0	0

For the Portland-place mansions, London, exclusive of fittings and hydraulic lift, for Mr. Lionel Lawson. Mr. C. J. Phipps, architect. Quantities by Mr. G. R. Tasker:—

Haigh & Co.	£18,750	0	0
Merritt & Ashby	17,927	0	0
Browne & Robinson	17,900	0	0
Brass	17,357	0	0
Patman & Fotheringham	17,097	0	0
Dove, Brothers	16,945	0	0
Manley (accepted)	15,787	0	0
Scrivener & Co. (withdrawn)	15,196	0	0
Fittings to Baths and W.C.s.			
Smeaton & Sons (accepted)	215	0	0
Concrete Floors and Stairs.			
Drake (accepted)	781	0	0

Accepted for the reconstruction of the Alexandra Theatre, Liverpool. Mr. C. J. Phipps, architect:—

Jones & Sons (general building)	£2,800	0	0
Bell (painting and decorating)	700	0	0
Jackson & Sons (fibrous plaster)	550	0	0
Mears (stage and machinery)	400	0	0
Dawnay (iron girders)	250	0	0
Urquhart & Adamson (upholstery)	235	0	0
Bucknall (gasfitting)	85	0	0

For alterations and additions to shop in the High-street, Folkestone, for Mr. Spencer. Mr. Burgess J. Reeve, architect:—

Slade	£250	0	0
Cambourne	180	0	0
Hoad	180	0	0
Brooks	170	16	0
Potts & Son (accepted)	165	0	0

TO CORRESPONDENTS.

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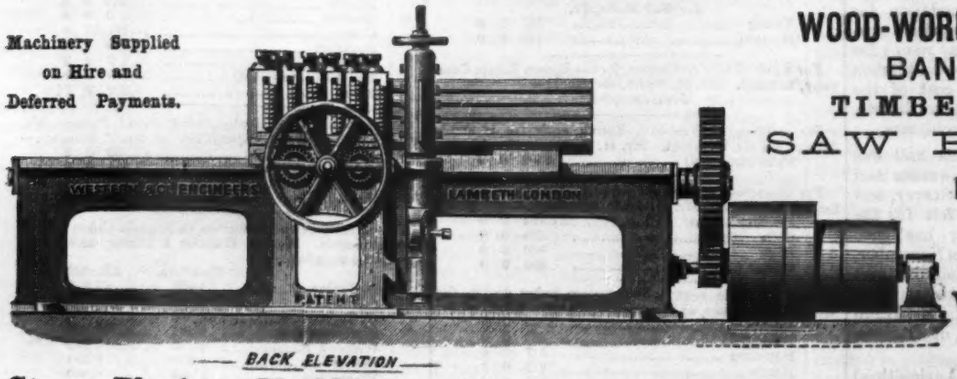

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